

# AGRICULTURAL OUTLOOK

November 1989

Economic Research Service  
United States Department of Agriculture



 Poland Restructures  
See page 14



# AGRICULTURAL OUTLOOK

November 1989/AO-158

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## In Brief...

Rural appraisers said in a recent survey that they expect U.S. farmland values to continue rising, but at a slower pace. They expect farmland values to average 3.5 percent higher in August 1990 than a year earlier, about half the rate of increase they estimated for August 1988-1989. Lower commodity prices were the most commonly cited reason for the slower expected growth.

Poland is restructuring its economy to rely more on the free market. Now, agricultural prices are set by the market, not the government. Food rationing has been abolished, and shortages are fueling rapid price increases.

While Poland's farmers have the potential to meet domestic needs, the shortages likely will persist at least through the winter, providing the government's policy reforms take hold. Farmers need time to boost production in response to the higher prices. In the meantime, some foreign assistance, including U.S. food aid, has already arrived, and more is on the way.

While both U.S. and world production of most crops is rising in 1989/90, demand is strong and ending stocks are expected to decline somewhat. Soybeans are the major exception; a surge in output will boost global ending stocks by more than 10 percent.

In the U.S., lower wheat stocks prompted the Secretary of Agriculture to loosen planting restrictions, and so an additional 66 million bushels are expected for 1990/91. Beginning coarse grain stocks in 1989/90 were down 51 percent from a year earlier, and the season's ending stocks are forecast to drop another 6 percent. U.S. meat production is forecast to rise 2.5 percent in fiscal 1990.

For 1989/90, U.S. season-average prices for wheat and rice are expected to be



above last season's, while the prices for soybeans, corn, and other coarse grains likely will fall. Choice steer and hog prices are expected to be stable to up slightly, while broiler prices probably will drop somewhat.

U.S. coffee drinkers may be enjoying their least expensive cups of java in decades. Disputes over coffee sales to nonmembers and over the availability of mild arabica coffees led the International Coffee Organization to abandon export quotas in July. Despite ongoing negotiations, the outlook for managed coffee trade is clouded. Wholesale prices have hit a 14-year low and may continue falling into 1990.

Opening markets on the Pacific Rim will continue to boost U.S. cigarette exports, in spite of stagnating U.S. sales to Europe. However, once U.S. companies establish a mature market share in the Pacific Rim countries, total U.S. cigarette exports are expected to level off.

Similarly, drops in European demand for U.S. unmanufactured tobacco leaf are

being somewhat offset as cigarette manufacturers on the Pacific Rim buy more U.S. leaf to improve their own blends. International demand for U.S. leaf may increase only modestly over the next few years.

Proposed GATT reforms could have a major impact on the world tobacco market. Research suggests that phasing down worldwide government support and protection of agriculture would lower tobacco prices, although prices would continue to vary considerably between different kinds and crop qualities. Global tobacco output and consumption would rise slightly. Global trade would also go up.

Under trade liberalization, U.S. tobacco leaf production would almost surely increase as farmers' production quotas were phased out, and exports would rise. But prices growers receive would fall as price supports were phased out. With quotas gone, quota-owners' land values would fall. Geographic patterns of U.S. production would shift, and some growers likely would leave farming, unless the government made income-support payments that did not distort trade.

Assessments of the general economic situation have changed considerably over the past year, progressively shifting across three scenarios: a serious bout of inflation, a monetary policy-induced recession and, most recently, slowing export growth due to the dollar's recent rise.

Policy measures and midyear commodity price slides have eliminated the first two possibilities as likely outcomes over the next 6 months, virtually assuring that the current expansion will last well past its seventh birthday next month. So, the near-term general economic outlook continues to mildly support U.S. agriculture.





## Agricultural Economy

### Plantings for 1990: A Ticklish Decision

A few years ago, U.S. grain surpluses were so big that much effort went into devising new ways to store them. Now, instead of surpluses being parked in abandoned silica sand mines and in barges along the Mississippi, some analysts are concerned about adequate food reserves.

The 1988 drought, coupled with government acreage reduction requirements, cut U.S. grain production substantially in 1988/89. Higher prices and lower acreage reduction requirements encouraged farmers to increase plantings for this year, the 1989/90 season.

But unfavorable weather in some regions is holding production down from its potential. While both U.S. and world production of most crops is rising in 1989/90, demand is strong and stocks are expected to continue falling.

Consequently, food grain prices are continuing up. These higher prices are signals to farmers to increase production. And USDA has again loosened wheat acreage reduction requirements for 1990/91, making it easier for farmers to continue expanding.

### Income Recovery Is Remarkable

The flip side of the tightening stocks situation is a bright farm income picture. Adjusted for inflation, net farm income for 1989 is forecast to be up about 35 percent from 1984, when farmers were struggling through their worst financial crisis since the Great Depression.

Switching from a production-based measure of income to a cash-based measure still shows a marked increase. Farmers' inflation-adjusted net cash income for 1989 is forecast to be up about 20 percent from 1984.

Less of the income now needs to go to pay off debts. Last year, farm debt was down almost 30 percent from its 1983 high of \$193 billion, and it has stabilized this year. Farmers seem to be using more of their own savings, as opposed to new debt, to finance increases in plantings.

Farmland values have recovered somewhat from the mid-1980's financial crunch, although the increases may be slowing (see the Resources article on land values).

Because land values embody profits expected for the next decade, the recent slowing could reflect concerns about long-term trends in commodity prices, the 1990 farm bill, the GATT negotiations, and the European 1992 unity movement. On a more basic level, the slowing likely reflects farmers' more cautious attitudes following the financial crisis.

### Farmers and Government Behind Recovery

Burdensome stocks accumulated in the mid-1980's as the world's farmers responded to tight supplies and high commodity prices of the 1970's. But world production growth outpaced demand growth in the early and mid-1980's, and stagnating prices touched off the farm financial crisis. Land values plummeted as farmers' returns did not keep up with earlier expectations.

In response, the government kept target prices high, but said that the targets would drop steadily in coming years. The government also increased the acreage reduction requirements, effectively

froze the number of acres eligible for program benefits, and froze program yields that help determine the size of government payments. The Export Enhancement Program also helped whittle down stocks.

For the past 2 years, some acreage reduction requirements have been loosened in response to growing demand, while the weather limited production growth.

Now, with higher market prices and lower target prices, government payments make up a smaller share of farm income than in the mid-1980's. Direct government payments are expected to fall by as much as \$4 billion this year from last, a drop of about one-fourth.

Yet the weather resulted in some redistribution of farm income. Farmers without stocks whose crops were damaged by the weather in the past 2 years saw their incomes fall, while those with large stocks and better yields saw their incomes rise. For the farmers with declining incomes, Federal disaster assistance and Federal crop insurance at least have limited the declines.

### Potential To Expand Is There

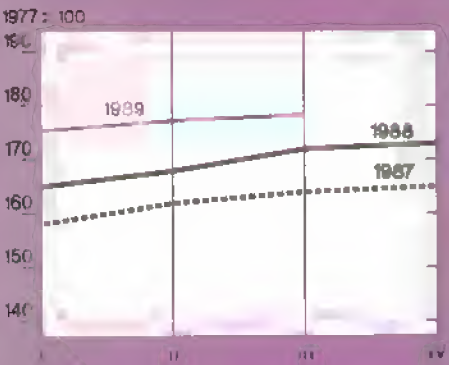
In the U.S., land used to grow this season's crops is estimated at 342 million acres, up 14 million from last year, but down almost 12 percent from the 1981 peak. A little over 29 million acres were idled in 1989 by the annual government programs. This figure excludes the nearly 30 million acres held out of production because they were in the Conservation Reserve.

Should crop supplies tighten further and prices rise, the acreage idled under the annual programs could quickly return to production. Acreage is committed to the Conservation Reserve for a 10-year period, however.

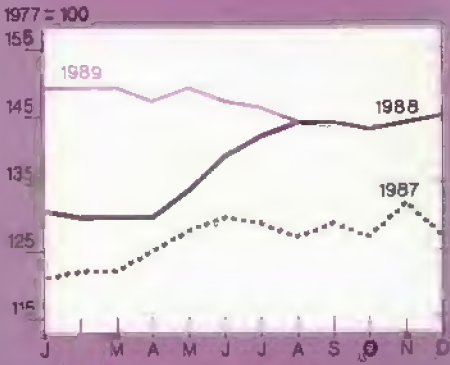
Other countries also have the potential to expand agricultural production. Canada, the EC, Brazil, Argentina, Thailand, and others could substantially boost output if producer prices rose enough. Expansion would come from planting on less productive land, using new technologies, and using new seed varieties.

Prime Indicators of the U.S. Agricultural Economy

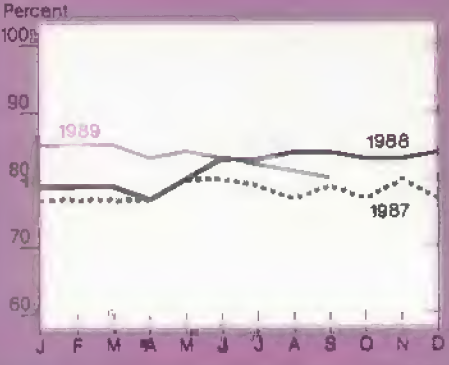
Index of prices paid by farmers



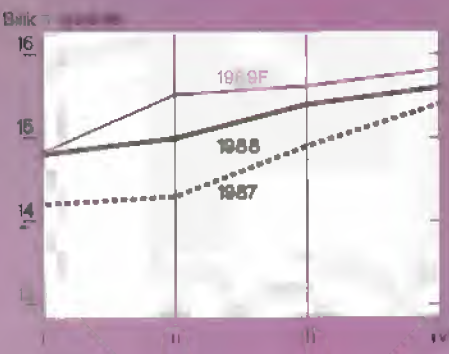
Index of prices received by farmers<sup>1</sup>



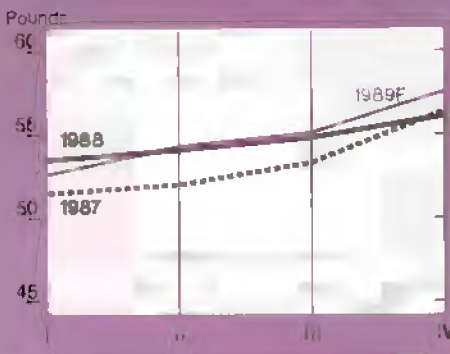
Ratio of prices received to prices paid



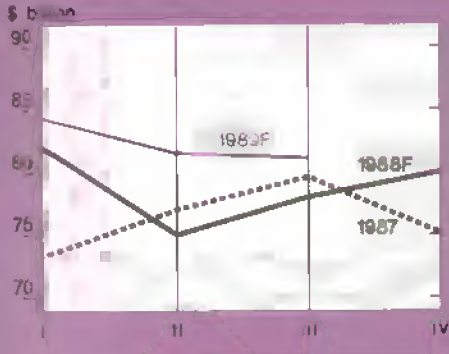
Red meat & poultry<sup>2</sup> production



Red meat & poultry consumption, per capita<sup>2,3</sup>



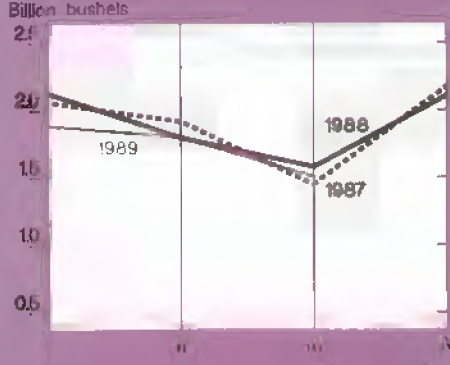
Cash receipts from livestock & products<sup>4</sup>



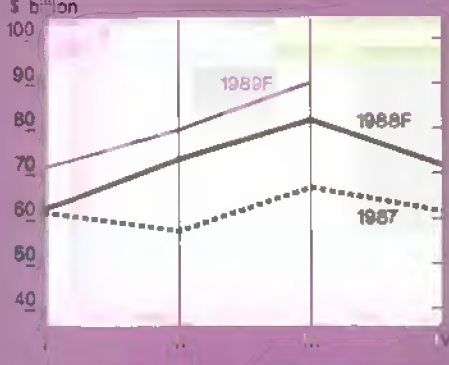
Corn beginning stocks<sup>5</sup>



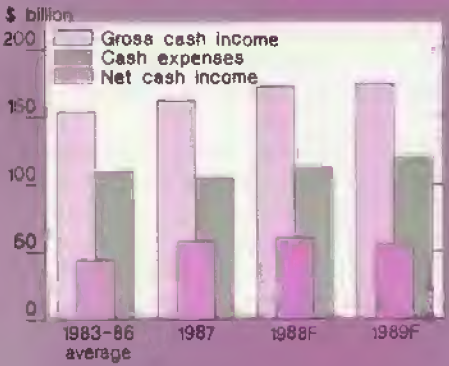
Corn disappearance<sup>5</sup>



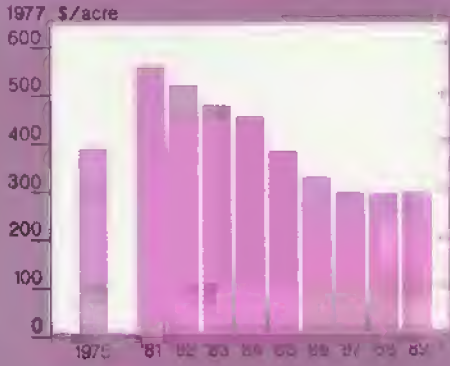
Cash receipts from crops<sup>4</sup>



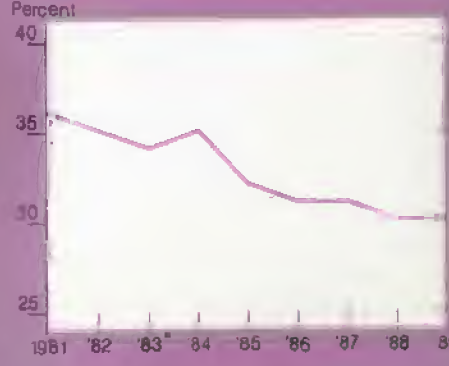
Farm net cash income



Average real value of farm real estate



Farm value/retail food costs



<sup>1</sup>For all farm products. <sup>2</sup>Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts.  
<sup>3</sup>Retail weight. <sup>4</sup>Seasonally adjusted annual rate. <sup>5</sup>I=Dec.-Feb., II=Mar.-May, III=June-Aug., IV=Sept.-Nov. F=forecast.



Right now, the need for such a large production increase is in some doubt. Both the EC and the U.S. are continuing to subsidize wheat exports. In the U.S., the large recovery in this season's coarse grain and soybean crops has lowered prices from recent highs. Moreover, such a surge in worldwide production would come at some environmental cost. But the higher prices and profits would help farmers absorb the costs of shifting to more environmentally sustainable farming practices.

#### ***How Much Acreage: Striking a Delicate Balance***

U.S. farmers are thinking about how much to plant in the coming year. Many factors will enter into the decisions, but farmers' experiences in the 1970's and early 1980's may temper plans for expansion.

If normal weather returns next year, markedly higher acreage could result in record production, but put downward pressure on prices and incomes, and increase government spending on farm supports. Yet if acreage expands only slightly, and weather results in lower yields, concerns about crop supplies will grow.

Undergirding the debate on how much to produce are the issues of farmers' incomes, the environment, the Federal deficit, and the U.S. trade position, as well as maintaining an adequate food reserve. These issues are helping to shape the debate over the 1990 farm bill. [Gregory Gajewski (202) 786-3313]

## **Livestock, Dairy, and Poultry Overview**

*Livestock producers generally face lower feed costs and higher output prices than a year ago. In October, corn was about 40 cents per bushel below a year earlier, and soybean meal was about \$60 per ton lower.*

*Prices for barrows and gilts, feeder cattle, cows, eggs, and milk were all up at least 5 percent, and Choice steer prices remained up slightly. Wholesale broiler and turkey prices were down, though broiler net returns remained positive.*

### ***Hog and Pig Inventories Unchanged***

The inventory of all hogs and pigs in the U.S. as of early September was near 58.4 million head, unchanged from a year earlier. Market hog inventories were slightly larger, while the number of hogs kept for breeding was down 3 percent.

The June-August 1989 pig crop, like the March-May crop, showed a 1-percent increase from the previous year. The number of sows farrowing in the summer was slightly lower than a year earlier, but improved weather conditions led to a substantial rise in the average number of pigs saved per litter.

Producers say they plan to have 1 percent fewer sows farrow during September-November than the previous year, but December-February farrowings should be unchanged.

The slight increases in the spring and summer pig crops and September 1 market hog inventories suggest that pork production may remain above a year earlier for the next 6 months. Through September, production this year was up 3 percent from 1988.

Barrow and gilt prices may average in the low \$40's per cwt this fall and winter, somewhat above last year. However, retail pork prices likely will be lower, as they were in the last 3 quarters. Retail prices are expected to decline seasonally this fall to around \$1.80 per pound, compared with \$1.84 in the third quarter.

### ***Calf, Feeder Cattle Prices Up; Beef Flat***

Improved pasture and range conditions during the summer increased feedlots' and grazing operations' demand for the short supply of stocker-feeder cattle. Many weaned calves were retained by cow-calf operations for additional pasture gain because of smaller inventories and excess forage.

Increased buyer competition has supported calf and feeder cattle prices, and caused cattle feeders to purchase heavier-than-usual replacements for cattle marketed. During August, placements were 3 percent below and marketings 5 percent below last year.

Federally inspected steer carcass weights reached a record in August because of heavier placement weights, excellent rates of gain, and the relatively high cost of replacements. Marketings of some cattle were delayed, possibly in anticipation of higher prices in late summer to early fall and negative returns to feeders.

During September, slaughter cattle prices reached a 1989 low of \$68.34 per cwt. The wholesale value of boxed beef also reached an annual low, \$110.08 per cwt for 550-700 pound Choice carcasses.

Meanwhile, the retail price of Choice beef has remained between \$2.68 and \$2.72 per pound since March. With cattle on feed inventories continuing below a year earlier, competition for the reduced supply of slaughter cattle should boost prices as marketings out of feedlots become more current.

The demand for beef intensifies during the fall, primarily reflecting higher demand for chuck and round cuts. Wholesale prices of these cuts should provide the necessary strength for boxed beef values to recover. Though the prices of competing meats will pressure beef, the retail price of beef may remain between \$2.70 and \$2.73 per pound through the end of the year, as the farm-to-retail spread declines seasonally.

### ***Broiler Production Expands; Exports at Record Rate***

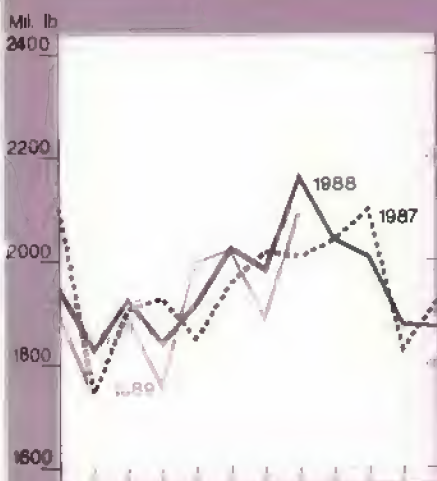
Broiler producers have been expanding flocks in response to sustained profitability. Net returns remained high during the 1988/89 drought year even in the face of rising feed costs, because increased growth in the hotel, restaurant, and institutional markets kept broiler prices high.

Because of the sustained profitability, annual production is anticipated to be about 7 percent above 1988. Production increases will probably continue into 1990 at a 7-8 percent rate.

Chick hatch and placement in August and September averaged slightly over 6 percent above a year earlier, indicating that fourth-quarter production probably will be 7 percent above a year earlier. Placements appear to be declining somewhat after being up nearly 8 percent in July.

# Production of Livestock and Products

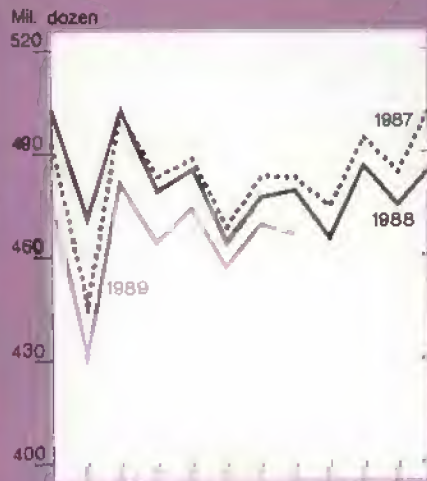
Commercial beef



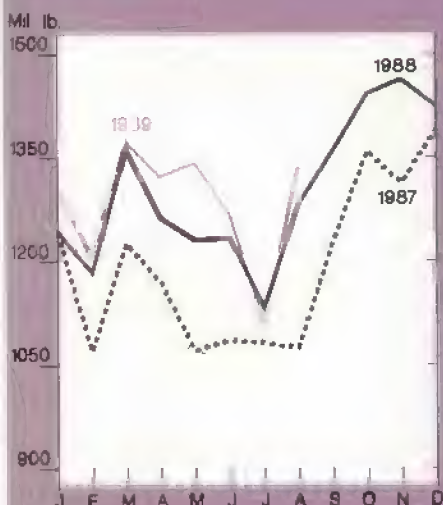
Broilers<sup>1</sup>



Eggs



Commercial pork



Turkeys<sup>1</sup>



Milk



<sup>1</sup>Federally inspected production, ready-to-cook.

The placements may have declined for several reasons. There were hatchery limitations, and growers may have placed extra birds during July because cooler summer weather was speeding broiler growth and birds would be needed to fill a void in September.

The 12-city wholesale broiler price averaged about 60 cents per pound in the third quarter, and likely will average 49-53 in the fourth quarter. These estimates compare with 66.1 and 57.9 cents per pound for the same periods in 1988. Broiler prices fell from second-quarter highs as dark meat supplies began to drag down the market. Also, fast-food markets were not as strong as expected.

Third-quarter net returns were about 10 cents per pound, compared with 15.6 cents a year earlier. Returns should remain positive into 1990, given projections of lower feed costs.

Broiler exports continue at a record rate, with January-July exports of 539 million pounds. Volume and value were about 29 percent above a year earlier. Nearly 96 percent of the broiler exports were parts.

Sales to Canada and Hong Kong increased particularly sharply, reflecting slow domestic production there and competitive U.S. prices. Japan continues to be the leading export market for U.S. broiler meat, followed by Hong Kong.

## Table Egg Output Down; Hatching Eggs Up

Following a major reduction in the egg laying flock in late 1988 and early this year, total egg production in 1989 is expected to be down about 2 percent from 1988. Hatching egg production will be up about 4 percent, reflecting the expansion in the broiler industry. But table egg production likely will decline about 3 percent as a result of negative returns during late 1987 and 1988.

Third-quarter total production probably was down about 2 percent, but fourth-quarter production is expected to be up 1 percent. Fourth-quarter table egg production likely will be unchanged from a year



earlier as added pullets begin to bolster flock size. Along with larger hatching egg production, this could put production above a year earlier.

### **Egg Prices Rise Sharply, And Net Returns Are High**

Egg prices continue strong as supplies are gathered to meet export contracts for shipments to Mexico. However, prices have dropped a bit from the 88-cent-per-dozen high reached in mid-August, when the egg sale was announced. The New York wholesale price for grade A large eggs averaged 83.8 cents per dozen in September, compared with 75.7 cents a year earlier. Smaller supplies than a year earlier also were partly responsible for the higher prices.

Wholesale New York prices averaged 81.5 cents per dozen in the third quarter, 8.5 cents above a year earlier. Fourth-quarter prices are expected to be 76-80 cents, compared with 67.3 in fourth-quarter 1988.

Prices for 1990 may average 63-69 cents per dozen, compared with an estimated 78-79 in 1989, because of increased production. First-quarter 1990 prices are estimated at 67-73 cents.

Net returns to egg producers are expected to be positive for 1989. Net returns are believed to have been nearly 17 cents per dozen in the third quarter and are forecast to be 13-15 cents in the fourth quarter. The last time average net returns were positive for all four quarters of a calendar year was 1976. Returns in first-quarter 1990 probably will continue positive.

Total production for 1990 is projected to rise about 2 percent. First-quarter 1990 output probably will be between 1 and 2 percent above a year earlier.

### **Cheese Prices Rise**

American cheese markets were very tight in early autumn. In early October, cheddar cheese (40-pound blocks, Wisconsin assembly points) sold for about \$1.60 per pound, up more than 40 cents from early March. Record prices were only part of the story; short or delayed cheese shipments were reported as widespread.

Current market conditions are the result of several factors:

- American cheese sales accelerated in mid-1988. Sales rose 8 percent from a year earlier during July 1988-June 1989. Consumers who had been receiving donated cheese went back to buying it.
- Since April, export commitments and high prices for nonfat dry milk have made it difficult for American cheese plants to attract milk away from butter-nonfat dry milk producers. In addition, 1989 milk production has been weaker in the core Midwestern and Eastern cheese areas than in other regions.
- Early 1989 commercial stocks of American cheese were quite low, but cheesemakers apparently decided to wait until spring before rebuilding stocks. However, tightening milk supplies made full recovery in stocks impossible, and commercial holdings stayed relatively low.
- Falling milk production provided a final blow to cheese markets. Longer term effects of the 1988 drought and poor early forage conditions in 1989 dropped milk output; April production was 2 percent above a year earlier, but July-September output was down by 1.4 percent.
- Market conditions will not change greatly during the rest of 1989. Sales probably will stay strong. Although milk production may move above a year ago, it will be seasonally too low to have much immediate impact. Cheese prices may hold until almost yearend.

Dramatic cheese price drops are expected in early 1990, as cheese output surges. Milk production probably will expand strongly, both seasonally and relative to a year earlier. Meanwhile, nonfat dry milk prices are expected to decline precipitously as export commitments are completed.

For further information, contact: Ken Nelson, coordinator; Fred White, cattle; Kevin Bost, hogs; Lee Christensen and Larry Witucki, broilers, turkeys, and eggs; Sara Short and Jim Miller, dairy. All are at (202) 786-1285.

## **Field Crops Overview**

*As Northern Hemisphere harvesting of corn and soybeans nears completion, attention is shifting to the Southern Hemisphere, where planting is underway. An expected recovery in Argentina's corn production will boost its exports. Another very large Southern Hemisphere soybean crop likely will limit U.S. soybean and product exports.*

*In the U.S., lower wheat stocks prompted the Secretary of Agriculture to loosen planting restrictions, and so an additional 66 million bushels are expected for 1990/91. U.S. beginning stocks of coarse grains for 1989/90 were down 51 percent from a year earlier, and the season's ending stocks are forecast to drop another 6 percent.*

*U.S. rice stocks at the end of 1989/90 are expected to be down 16 percent from a year earlier. And U.S. cotton ending stocks are projected to drop 53 percent, contributing to tight world supplies.*

### **Program Change Boosts U.S. Wheat Production**

U.S. wheat stocks in early September were 1.91 billion bushels, less than the nearly 2.0 billion expected by most analysts. Supplies for June-August were estimated at 2.75 billion bushels, down 11 percent from a year earlier.

Moderate prices during the first 5 months of the marketing year have encouraged domestic use. In light of the heavy marketings, the October estimate of the range for the season-average price received by farmers was lowered slightly to \$3.85-\$4.10. But prices are still expected to be higher than last year.

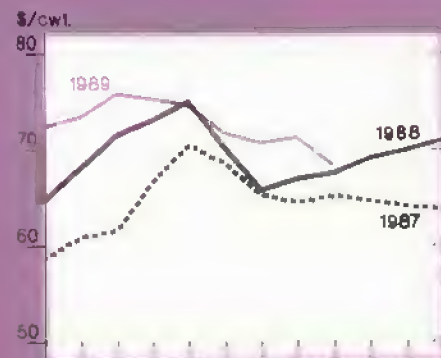
U.S. wheat production is expected to total 2.042 billion bushels in 1989/90, 13 percent above last year. But ending stocks probably will be down about 37 percent.

To boost supplies, USDA announced on September 13 that farmers participating in the 1990 wheat program have the option of planting up to 105 percent of their wheat base acres (see the October *Agricultural Outlook*).

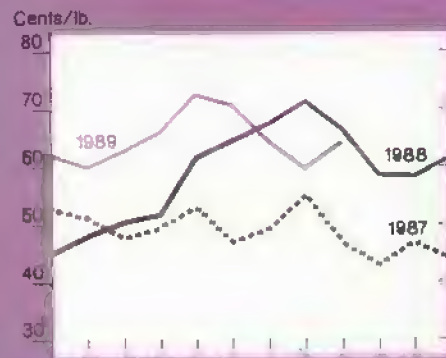


# Commodity Market Prices

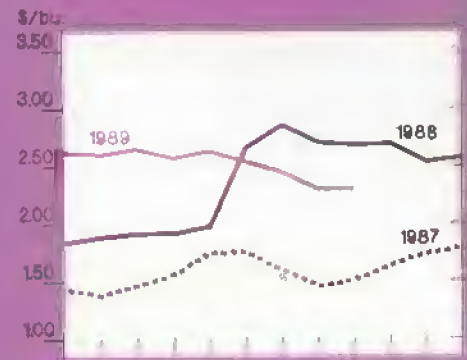
Choice steers, Omaha



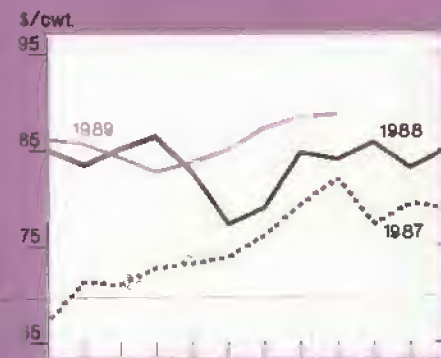
Broilers, 12-city average



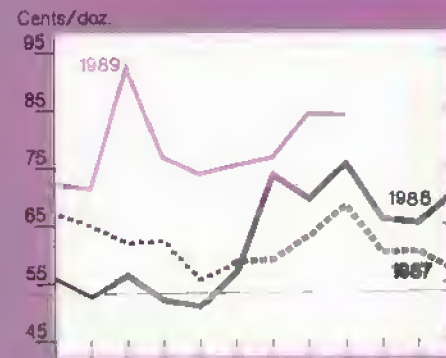
Corn, Chicago<sup>3</sup>



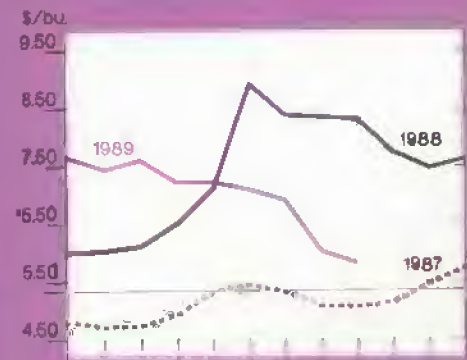
Feeder cattle, Kansas City<sup>1</sup>



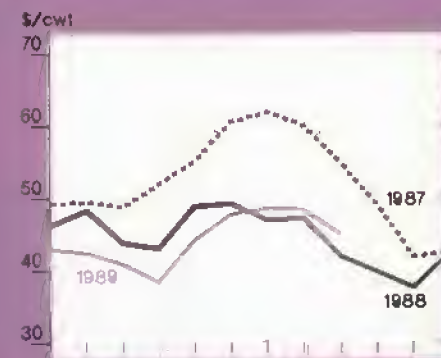
Eggs, New York<sup>2</sup>



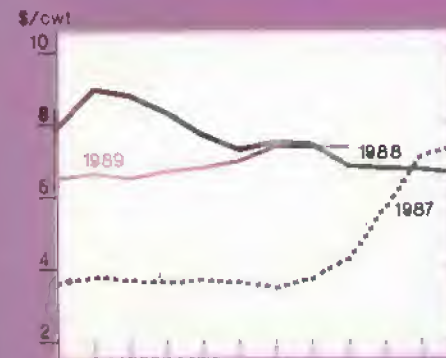
Soybeans, Chicago<sup>4</sup>



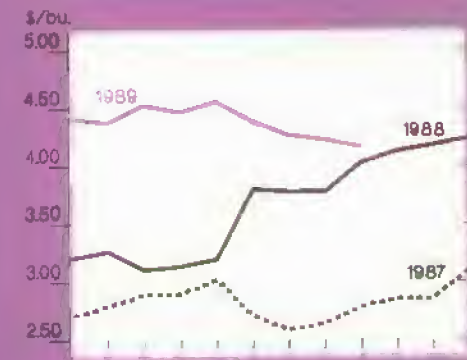
Barrows and gilts, 7 markets



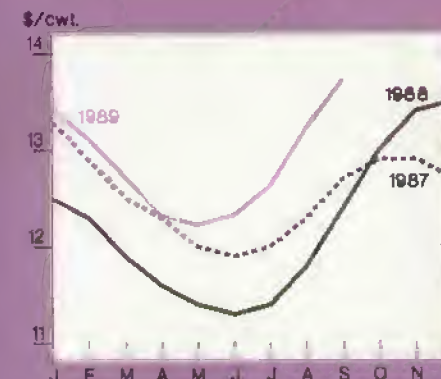
Rice (rough), SW Louisiana



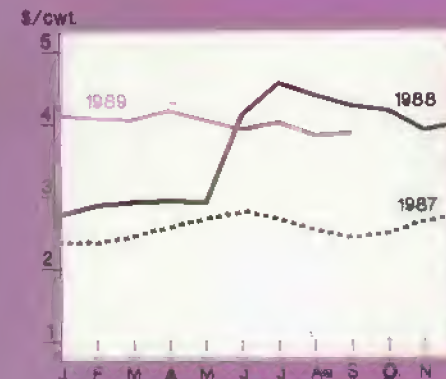
Wheat, Kansas City<sup>5</sup>



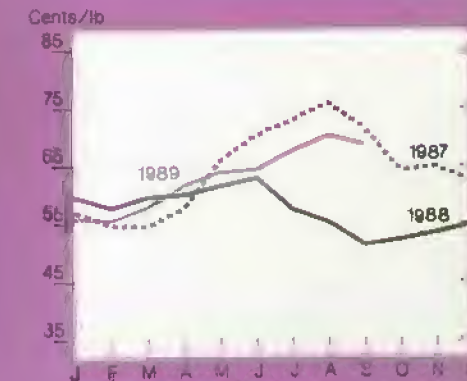
All milk



Sorghum, Kansas City



Cotton<sup>6</sup> average spot market



<sup>1</sup>600-700 lbs., medium no. 2. <sup>2</sup>Grade A large. <sup>3</sup>No. 2 yellow. <sup>4</sup>No. 1 yellow. <sup>5</sup>No. 1 HRW.

### **Feed Grain ARP's and Support Prices Announced**

On September 30, the Secretary of Agriculture announced a 10-percent corn, sorghum, and barley acreage reduction for the 1990/91 crop year, unchanged from a year earlier. Even though stocks are likely to drop slightly, prices are expected to decline this year.

Overall program provisions are the same as for the 1989/90 crop year, except for the split of the barley and oat bases. In an effort to expand oat production, the acreage reduction for oats was again set at only 5 percent. The oat base will be split from the barley base in 1990/91 and

With the program change, USDA estimates that harvested wheat area will rise by 2.1 million acres in 1990/91. Assuming average yields, this should result in an additional 66 million bushels of wheat. Overall, the income of wheat farmers is expected to rise slightly because of the modifications.

Although the U.S. will account for about 22 percent of the increase in world wheat production in 1989/90, foreign production is also forecast up, rising 5 percent to 475 million tons. Significant production increases are expected in India, China, and the USSR.

Among competitors, jumps in Canada's and Argentina's wheat production are estimated to be particularly strong this season, 50 and 36 percent, as each country recovers from drought. Consequently, exports from each will rise from last season's reduced levels.

For the second consecutive year, the EC is expected to be the U.S.'s largest export competitor, producing a forecast 1989/90 wheat crop of 79 million tons, second only to the 1984/85 record. Because of large EC stocks and higher output, combined with tight supplies in other exporting countries, EC exports this year and last are up by about a third from the 1985-87 average.

World wheat trade is expected to rise slightly to 99 million tons. Increases in imports by Brazil and Turkey are likely

cross-compliance requirements will not apply to oats. That is, farmers signing up for other commodity programs do not have to be in compliance for oats.

The Secretary also announced per bushel target prices for 1990/91: \$2.75 for corn, \$2.61 for sorghum, \$2.36 for barley, and \$1.45 for oats. Target prices for 1989/90 were \$2.84 for corn, \$2.70 for sorghum, \$2.43 for barley, and \$1.50 for oats.

Loan rates for 1990/91, per bushel, were announced at \$1.57 for corn, \$1.49 for sorghum, \$1.28 for barley, and \$0.81 for oats. Loan rates this year are \$1.65 for corn, \$1.57 for sorghum, \$1.34 for barley, and \$0.85 for oats.

to largely offset the forecast 3.5-million-ton drop in Soviet imports, which are falling because of increased domestic production.

### **Argentina's Corn Crop Expected Up 60 Percent**

World coarse grain production is also forecast to rise this season. Much of the gain will occur in the U.S., with domestic production expanding to 220 million tons, 47 percent above a year earlier. Foreign production is projected up about 1 percent to 585 million tons. Substantial gains forecast for Eastern Europe, the USSR, Canada, Australia, and Argentina are partly offset by expected declines in the EC, Thailand, and South Africa.

Of the coarse grains in Eastern Europe, corn output likely will increase the most, while the USSR will expand production of both corn and barley.

Both Canada's and Australia's barley crops probably will be much bigger in 1989/90. But, Argentina will post the largest percentage growth in competitor coarse grain output this season. Its corn and sorghum crops, now being planted, are expected to show dramatic recoveries.

Argentine corn production is projected at 7.5 million tons, up 60 percent from last year's drought-reduced crop. While much of the gain likely will stem from a recovery in yields, corn area harvested will also rise because of less abandonment. However, planted acreage is not expected to increase this season, because

oilseeds are generally perceived as the more profitable crop there.

Argentina's corn exports are expected to increase nearly 50 percent. South Africa's sales are forecast to jump even more, reflecting its recently harvested bumper 1988/89 crop. Foreign corn exports on balance are likely to increase 21 percent to 16 million tons.

In the U.S., beginning stocks of coarse grains for 1989/90 totaled 65.9 million metric tons, down 51 percent from 1988/89. But larger production this year will more than offset the decline in stocks, and total estimated supply of 287.2 million tons is up 1 percent. Stocks of corn on hand September 1 were 1,930 million bushels, down 55 percent from last September 1. Sorghum stocks, at 438 million bushels, were down 34 percent.

Corn use for 1989/90 is estimated to slightly exceed the season's production. Consequently, ending stocks for 1989/90 are forecast at 1.88 billion bushels, down 2 percent from a year earlier. And total coarse grain ending stocks are expected to drop about 6 percent.

### **Argentina's Soybean Production Also Rebounds**

Foreign soybean production is forecast at 56 million tons in 1989/90, up 6 percent from a year earlier. Most of the increase is expected to come from the recovery in Argentina, where output is projected at 10.5 million tons, up 59 percent from a year earlier. Both Argentine area and yields are likely to be up sharply from last year's drought-reduced levels.

USDA forecasts a strong recovery of Argentine soybean exports in 1989/90, in part because of expected greater EC demand next spring, when U.S. soybean exports already will have been committed. More modest gains are expected in Argentine soybean meal exports.

Unlike Argentina, Brazil's soybean acreage is likely to be off somewhat in 1989/90 because returns for cotton and other competing crops have increased relative to soybeans. Brazil's soybean production is forecast at 20.5 million tons, 11 percent under a year earlier. Brazilian soybean exports are forecast off slightly



in 1989/90, but a pickup in crushing likely will prompt sharp gains in meal exports.

U.S. soybean stocks in all positions in early September were estimated at 182 million bushels, somewhat higher than anticipated. These stocks, plus the prospect of more normal 1989 soybean production, about 1.9 billion bushels, pushed daily cash soybean prices (Central Illinois) to the mid-\$5 range by the end of September, down from \$7.60 a bushel in March.

For 1989/90, U.S. demand for high-protein animal feeds is expected to prompt greater domestic soybean meal use. Domestic soybean oil disappearance also is likely to rise. But total demand will show only a moderate rise, because foreign competition likely will hold down gains in U.S. exports of soybeans and meal.

U.S. soybean ending stocks are forecast at 325 million bushels, a 79-percent gain over last year's drought-reduced stocks. Consequently, soybean and soybean product prices are expected to fall this year from 1988/89.

### **Cotton Supplies Tighten**

Foreign cotton production in 1989/90 is projected down slightly, about 1 million bales below 1988/89, to 68 million bales. Output in the USSR, Turkey, and Mexico has been reduced by poor harvest conditions, exacerbating what is anticipated to be the tightest global cotton supply since World War II.

In response, Southern Hemisphere producers are expanding area as much as possible to try to take advantage of expanding export opportunities next spring. But significant production gains this season will only moderate Northern Hemisphere losses.

Despite the small foreign drop, most of the decline in 1989/90 world cotton production will occur in the U.S. The U.S. cotton yield is forecast at 603 pounds per harvested acre, 2.6 percent below last season. With 1989/90 harvested area estimated at 9.55 million acres, down 20 percent from last season, 1989/90 U.S. cotton production should drop to an estimated 12 million bales, more than 3 million below 1988/89.

Early-season weather ranging from hail and drought in portions of Texas to excessive rainfall in the Mississippi Delta reduced potential yields and delayed crop development. Recent cool weather in the Texas High Plains and the Delta has further hindered an already late-maturing crop. And Hurricane Hugo decimated expected yields in South Carolina.

While 1989/90 production prospects have diminished in recent months, total U.S. use is projected at a 30-year high, and ending stocks could be less than half of those last season. Domestic mill consumption of cotton has continued at a brisk pace, forecast to be 8 million bales for the year. U.S. cotton exports are expected to reach 7.8 million bales, up 26 percent from last season.

The gains in Southern Hemisphere production should substantially increase export availabilities and competition next spring. Until then, however, very tight supplies, particularly among the largest foreign exporters—China, the USSR, and Pakistan—are moderating competition.

### **Forecast Rice Carryout The Lowest Since 1980/81**

Ending stocks of U.S. rice for 1989/90 are projected at 22.4 million cwt, down 16 percent from a year earlier. This is the lowest since 1980/81. Near-record exports in 1988/89 contributed to a 15-percent reduction in beginning stocks. In addition, 1989/90 U.S. production is estimated at only 155 million cwt, compared with 160 million last season.

U.S. total rice use for 1989/90 is projected to fall to 164 million cwt, 2 percent below the year before. Lower U.S. exports, projected at 79 million cwt, are expected to offset a slight increase in domestic use. U.S. exports are projected down because world trade is expected to slip in calendar 1990.

Overall, the estimated reduction in 1989/90's U.S. rice supply exceeds the reduction in use. This factor, in addition to relatively high world rice prices, likely is moving U.S. rice prices up moderately in 1989/90. U.S. prices are expected to range from \$6.50 to \$8.50 per cwt, com-

pared with \$6.50 to \$7.00 in 1988/89. [Joy Harwood (202) 786-1840 and Carolyn Whitton (202) 786-1826]

**For further information, contact:** Sara Schwartz, world food grains; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Larry Van Meir and Allen Baker, domestic feed grains; Bob Cummings, world oilseeds; Roger Hoskin, domestic oilseeds; Carolyn Whitton, world cotton; Bob Skinner and Scott Sanford, domestic cotton; Jim Schaub, domestic peanuts. World information (202) 786-1824, domestic (202) 786-1840.

## **Specialty Crops Overview**

*USDA has loosened the sugar import quota in light of tightening supplies and rising prices. Shipments from Brazil have been slower than expected.*

*U.S. citrus production is forecast to decrease 8 percent in 1989/90. California's higher navel orange production will partly offset Florida's lower citrus output.*

*USDA expects the harvested area of 7 fresh vegetables in the major producing states to be 3 percent above last year.*

### **Sugar Quota Extension May Ease Tight Supply**

In an effort to ease tight domestic supplies, USDA has extended the 1989 sugar quota period from 12 to 21 months and increased the quota to 1.987 million metric tons from 1.125 million. The new quota period ends September 30, 1990. Shipping patterns are being adjusted to allow 135,000 metric tons of the increase to enter the U.S. in fourth-quarter 1989 to augment near-term supplies.

Reduced sugar production in Hawaii, lower spring beet outturn in California, and a slowed pace of quota-sugar arrivals from Brazil have lowered supplies heading for the domestic market. U.S. raw sugar prices were pushed to 24.7 cents a pound in early September. Prices retreated to about 23 cents following the quota and shipping pattern changes. Raw sugar prices typically average about 22 cents, given the current 18-cent guaranteed CCC loan rate.

Some of the slowness in deliveries of quota sugar may have been due to exporters' expectations of higher world sugar prices. World consumption has exceeded production for 5 consecutive years. Consequently, global sugar stocks by the end of 1989/90 are likely to be the lowest since 1980/81. World prices soared during 1980 and 1981, peaking in late 1980 at 41 cents a pound.

World raw sugar prices (f.o.b. Caribbean, contract no. 11) rose from an average of 6.05 cents a pound in calendar 1986 to 10.18 cents in 1988. The monthly average rose from 9.7 cents in January 1989 to 14.1 in September. Unexpected purchases by the USSR, prospects of heavy buying by India, and delays in export shipments from Brazil have fueled the present price runup.

#### **U.S. Citrus Production Down**

U.S. citrus production for the 1989/90 season is forecast at 276.4 million boxes, down 8 percent from last season. This excludes California grapefruit grown in nondesert areas. Florida's orange and grapefruit production is down, while California's navel orange output will rise.

The 1989/90 California navel orange crop is expected to be 3 percent greater than last season and 11 percent above 1987/88. Most California navels are sold as fresh oranges. Quality is high and fruit is larger than last year. Despite the bigger crop, prices likely will remain steady or rise from last year, reflecting the crop's high quality and strong export demand.

Florida's all-orange production is forecast 11 percent below last season and 6 percent below 1987/88. While the cold weather during the February-March bloom period likely made fruit size more variable, quality is considered very good. The bulk of Florida's orange production goes into processing.

Despite the smaller Florida orange crop, grower returns may fall slightly. Prospects for a record-large orange crop in Brazil likely will lead to a drop in the price of imported frozen concentrate. Brazil exports a substantial part of its frozen concentrate to the U.S., and the price of its exported juice affects U.S. orange growers' returns.

Florida's grapefruit prospects are 20 percent below last year. Texas' production is expected to be down 8 percent. Grapefruit quality appears good. Bolstered by strong export demand, grower prices for grapefruit likely will exceed last season's.

#### **Apple Output Rising**

Sizable increases in apple production in the top three producing states (Washington, New York, and Michigan) have boosted total 1989 U.S. output 5 percent above 1988. Production is forecast 15 percent higher in Washington, which typically accounts for over half of the country's fresh apple output.

Damage from spring frosts reduced production in Pennsylvania, Virginia, and West Virginia. High winds from Hurricane Hugo caused heavier-than-normal fruit drop in North Carolina, Virginia, and West Virginia, further reducing output. Production in the Eastern states is forecast down 15 percent from last year. Much of the Eastern states' production is used in processing.

Prices will depend upon how well demand rebounds from the 1988/89 season slump following public concerns about Alar residues in apples. The September average grower price was 19.1 cents per pound for fresh apples, compared with 23.7 in 1988.

#### **Fall Vegetable Area Up**

For 7 fresh market vegetables, area for harvest in the major producing states during the fall season is estimated 3 percent above last year. Broccoli, carrot, cauliflower, celery, sweet corn, and lettuce acreage rose. Tomato acreage, most of which is in Florida, fell 3 percent.

Short moisture conditions during August and September in central and south Florida, along with hurricane threats in mid-September, delayed planting schedules. Florida accounted for 98 percent of the reported fall fresh tomato acreage in 1988. Reported acreage does not include California's fall tomatoes.

The fall lettuce area for harvest is up 2 percent from 1988. Acreage is up in California, but lower in Arizona, New Mexico, New Jersey, and Florida. Prices typically rise in the fall.

Onion supplies this fall are fractionally higher than a year earlier. Prices likely will exceed a year earlier because of strong demand.

#### **Tobacco Output Up, Use Down, But Prices Rise**

Despite an 8-percent jump in production and reduced cigarette consumption, U.S. tobacco prices will be higher in 1989/90. Smaller supplies, reflecting reduced carry-in stocks, and higher price supports are the reasons. The U.S. crop's relatively high quality is keeping export demand strong. Growers' cash receipts will surpass those for last year.

Tobacco supply is forecast 2 percent lower than in 1988/89. Beginning stocks for the new marketing year (July 1 for flue-cured and cigar wrapper types, October 1 for all other types) were about 9 percent lower than a year earlier.

U.S. cigarette output is expected to decline from 1988's 695 billion pieces, reflecting lower domestic consumption. Increased prices, health concerns, and smoking restrictions are cutting U.S. cigarette consumption. Per capita consumption has declined for 16 consecutive years.

Auction prices for flue-cured tobacco have been averaging 5 percent higher than a year earlier. Burley supplies will be down about 4 percent. Some grades will be in short supply. Prices are expected to remain above last year. *[Glenn Zepp and Catherine Greene (202) 786-1883]*

**For further information, contact:** Kate Buckley, fruit; Shannon Hamm, vegetables; Peter Buzzanell, sweeteners; Verner Grise, tobacco; Doyle Johnson, tree nuts and greenhouse/nursery; David Harvey, aquaculture. All are at (202) 786-1883.





## Commodity Spotlights

### Turkey Supplies Ample For Thanksgiving

Consumers probably will be able to buy their Thanksgiving turkey at lower prices than last year, because turkey production likely will be up 6 percent. The heaviest increases have come in the second half of the year, just in time for the holiday season.

How much lower than last year will retail prices be? That depends upon retailer pricing strategies. If many retailers price turkey as a loss-leader rather than by cost-plus markup, turkey prices could be much lower. When production increased dramatically in 1987, some stores featured free turkeys to customers who bought a certain grocery total. Other stores featured turkey below cost.

Increasing turkey production this year and the resulting price drops probably will mean that turkey producers will only break even or post small losses. However, earlier this year, record second-quarter prices portended a much better year. Price increases in the second quarter usually signal higher third- and fourth-quarter prices. Second-quarter Eastern hen prices were nearly 9 cents higher than the previous quarter.

But, with poult placements 18 percent higher in August and 12 percent higher in the 3 previous months, end-of-year

### Industry Integration, Biological Cycle Influence Output

Today's turkey industry has changed considerably since the 1950's. It is much more concentrated; fewer than 80 processors slaughter all the federally inspected production in the U.S. Furthermore, the largest 20 firms account for almost 90 percent of production.

The industry is also vertically integrated, but not as strongly as the broiler industry (see the May 1989 *Agricultural Outlook*). A corporation becomes vertically integrated when it controls most stages of the production process.

Marketing contracts as opposed to production contracts are still used to some extent, so processors do not own as much production from the poult to the final product as is the case with broilers. Consequently, producers still make some independent production decisions. This partly explains why turkey production responds so much to swings in price.

Another factor influencing swings in production is the biological cycle of turkeys. Breeder turkeys take more than 7 months

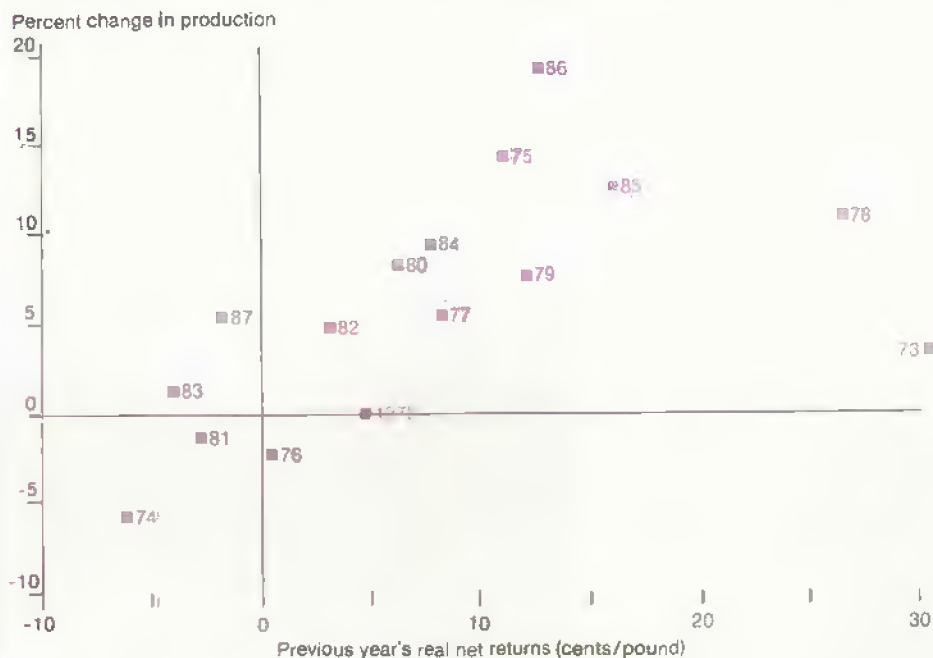
to mature and begin laying eggs. The first laying season lasts 6-7 months, when a molt is induced. Three months later, the breeder hen begins laying again. The second laying session lasts another 4-5 months, and then the breeder is slaughtered.

Whether a molt is undertaken will depend upon the value of turkey poult at the end of the first laying season. Mortality and culling of breeder hens can run as high as 20-30 percent.

Once an egg is laid, 28 days are required to hatch the poult and 4-5 months to grow the bird out to slaughter size. Hens usually take about 15 weeks, consumer toms 15-16 weeks, and canner or further-processing toms take closer to 17-18 weeks to reach desired weights. Live hens usually weigh 16 pounds or less at slaughter, consumer toms 20-22 pounds, and canner toms are around 30 pounds.

Thus, for a grower to expand production capacity, 14-15 months are needed if egg production is near capacity. A reduction in capacity takes 5-6 months. Such delays in response to price changes also help amplify production swings.

Turkey Output Follows Movements in Producers' Net Returns



production probably will increase more than 12 percent. Because of the output rise, fourth-quarter prices are unlikely to surpass the 71 cents per pound of the second quarter.

### ***Declining Feed Prices Help Producers***

Turkey production costs are likely to be down for the second half of 1989 because of declining corn and soymeal prices. In 1988, feed costs rose slightly early in the year because seasonal storage costs were bid into corn and soymeal prices. Then, in late May and early June last year, costs rose dramatically as the drought became more evident. This drove costs for whole dressed turkeys as high as 70 cents per pound in late 1988.

Corn prices began to subside in late 1988 and early 1989 as it became more evident that the 1988 crop was not as small as many feared, and use slipped. Soymeal prices began to fall also as South American production hit the market.

Feed costs likely will continue to drop, bringing costs of dressed whole birds down to 58 cents by early 1990, well below the 1988 high. Turkey production costs could reach 55 cents per pound by mid-1990, similar to costs in 1987. Lower costs of production may allow turkey producers to return to marginal profitability by late 1990.

Losses this year will have a direct impact on production in 1990. Growers' production responses appear to lag price changes by about a year, or about the time needed for the birds to mature.

### ***Processed Sector Explains Increased Consumption***

Consumers buy either the whole bird or parts and processed products. The expansion in turkey consumption has been mainly in processed products and parts. Nonetheless, whole birds are estimated by industry sources to constitute 35-40 percent of total turkey consumption.

More attractive processed products that have boosted consumption include fresh thighs, drumsticks and breasts (whole and sliced), ground turkey, turkey-sau-

sage, turkey-ham, and turkey-pastrami, all in convenient and competitively sized packages.

Today, consumers do not have to buy a 13-25 pound turkey. Rather, they can buy a package of turkey breast or thigh that is about the same size as most beef or pork roasts. Also, tenderloin cuts and ground turkey allow turkey to compete directly with other fresh meats in the relatively easy and fast-to-cook meat category.

### ***Per Capita Consumption May Grow More Slowly***

Increased turkey consumption has been spurred by lower relative prices during the last 5 years. Greater feed efficiency and faster growth through genetic improvement, plus better feeding and housing management, allowed real turkey prices to decline while per capita consumption continued to rise.

Yet these cost improvements appear to be slowing. Current cost-of-production figures show little difference from the recent past; furthermore, producers appear to be responding fairly closely to net returns. Thus, maintaining the growth in turkey consumption may be harder to do as further savings become more difficult to achieve. [Mark Weimar (202) 786-1285]

## **Pacific Rim Markets Brighten U.S. Tobacco Outlook**

Opening markets on the Pacific Rim will continue to boost U.S. cigarette exports in spite of stagnating U.S. sales to Europe. However, once U.S. companies establish a mature market share in the Pacific Rim countries, total U.S. cigarette exports are expected to level off.

Meanwhile, international demand for U.S. unmanufactured tobacco, referred to as "leaf," may not increase much over the next few years. Drops in European demand for U.S. leaf are being somewhat offset as cigarette manufacturers in the Pacific Rim countries buy more U.S. leaf to improve blends. The improved local blends are better able to compete with U.S. cigarettes.

### ***U.S. Exports Shift to Cigarettes***

Since 1986, the value of manufactured tobacco exports has surpassed unmanufactured, increasing 103 percent to \$2.9 billion in 1988. At the same time, unmanufactured exports have remained relatively stable, totaling between \$1 billion and \$1.3 billion. This rise in manufactured exports has been due to both more cigarette exports and more value added in processing manufactured products.

In 1986, the classification of manufactured tobacco products was changed to include some products formerly classified as unmanufactured. Although this change overstates the shift from leaf somewhat, it is still a minor influence compared with the greater cigarette exports. Unmanufactured tobacco leaf includes leaves that have been pulled from the plant and cured. Sometimes the stems are removed as well.

### ***High U.S. Prices Cause Long-Term Loss of Markets***

Reflecting the recent surge in cigarette exports, the U.S. share of the global cigarette market has grown from 20 percent in 1970 to about 26 percent in 1988. Yet the U.S. share of the world leaf market fell from 35 percent in the 1950's to about 14 percent.

In aggregate, the U.S. share of the world's leaf and product market slipped from 27 percent in 1970 to about 16 percent. Still, the U.S. is the world's largest exporter of tobacco. In 1988, the U.S. exported \$4.15 billion worth of tobacco and tobacco products. Leaf tobacco accounts for 4.4 percent of all U.S. agricultural exports.

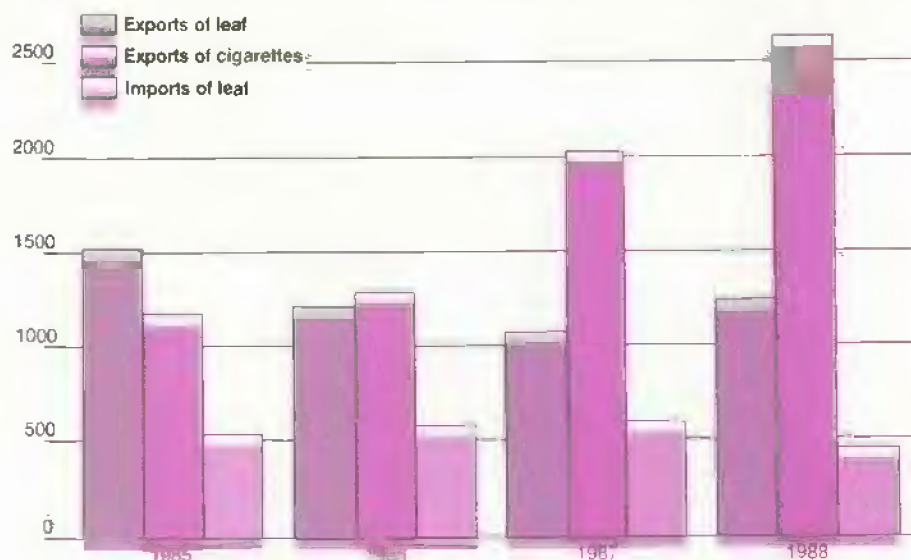
Relative prices contributed to the decline in U.S. leaf exports in the early 1980's. U.S. prices were nearly double those of competitors, mostly because of high U.S. price supports. Currency devaluations by major competitors, coupled with a strong U.S. dollar, exacerbated this differential. Taking advantage of these factors, other countries increased production and improved the quality of their leaf.

Now that U.S. prices are lower and the exchange value of the dollar is below the early 1980's, leaf exports would seem to be set to rise again. However, the export



## U.S. Cigarettes Now Double Leaf Exports

\$ million  
3000



increase is being dampened by tightening U.S. supplies, flattening cigarette consumption in European export markets, and a narrowing quality differential between tobacco grown in the U.S. and other nations.

### Flue-Cured and Burley Dominate U.S. Production and Trade

Flue-cured and burley are the major types grown in the U.S., together making up 94 percent of production and 93 percent of exports by volume in 1988. They are the primary components of cigarettes made with American-type blends and are the major types of tobacco leaf traded in the world market.

Oriental is also used in most cigarette blends, but it is not grown in the U.S. Turkey, Greece, the USSR, and Bulgaria produce most of the world's supply of oriental tobacco. Various dark tobaccos account for smaller shares of world trade and are used primarily in cigars, chewing tobacco, and snuff, although some is used in European, South American, and Middle Eastern cigarette blends.

By weight, flue-cured comprised 66 percent of U.S. tobacco exports in 1988 and burley 27 percent. Major U.S. competitors in flue-cured trade are Brazil, Zimbabwe, and India, while Malawi, Brazil, and Italy are the major foreign exporters of burley tobacco.

For all types, the major exporters of leaf tobacco are, in order of quantity: the U.S., Brazil, Greece, Zimbabwe, Italy, Turkey, Bulgaria, India, and Malawi. The U.S., West Germany, the U.K., the USSR, the Netherlands, and Japan are the major importers of leaf.

The U.S. is both the leading exporter and the top importer. Because some types of tobacco, such as turkish or oriental, are required for cigarette blends but not grown in the U.S., a certain quantity will always be imported unless substitutes are developed.

Moreover, tobacco is often cheaper to import than to purchase domestically, and foreign tobacco has been increasingly used in American products. In 1988, one-third of the tobacco used in American cigarettes was imported, slightly less than in 1987.

### U.S. Is Leading Exporter of Cigarettes and High-Quality Leaf

Cigarettes are the primary manufactured tobacco product traded, making up about 90 percent of the value of U.S. manufactured tobacco exports. The major exporters of premium cigarettes in the world market are the U.S., with one-fourth of world exports, the Netherlands, West Germany, the U.K., and Hong Kong. Bulgaria exports a considerable quantity of low-quality cigarettes that do not compete with premium blends.

The U.S. is still the premier supplier of high-quality leaf used in cigarette manufacturing. But, as other countries increase tobacco production and improve quality, the U.S. share of world exports has eroded. In addition, American

### Cigarette Exports Skyrocket

	Calendar years				January-June		
	1985	1986	1987	1988	1988	1989	Percent change
<b>Imports of Leaf</b>							
Value (mil. \$)	539.45	588.12	589.59	445.34	166.50	355.81	114
Quantity (mil. lbs.)	445.87	445.76	474.23	351.82	136.82	215.07	57
<b>Exports of leaf</b>							
Value (mil. \$)	1,520.68	1,223.58	1,089.94	1,251.75	690.00	750.00	9
Quantity (mil. lbs.)	548.97	477.42	429.99	481.80	272.22	273.05	0
<b>Exports of cigarettes</b>							
Value (mil. \$)	1,180.20	1,302.06	2,047.38	2,645.37	1,234.00	1,470.00	19
Quantity (million pieces)	58,967	64,258	100,246	118,499	56,000	64,656	15
<b>All tobacco exports</b>							
Value (mil. \$)	2,788.60	2,749.60	3,399.52	4,152.60	2,045.00	2,255.65	10

tobacco companies have found that with decreasing per capita consumption in the U.S., these export markets are becoming even more important to maintaining growth.

Developing countries are not large importers of American leaf because of its high price. But, from 1986 to 1988, U.S. government programs that guaranteed subsidized credit to some nations made U.S. tobacco more affordable in some developing countries.

Tobacco exports under these GSM programs averaged 34.8 million pounds annually from fiscal 1986 to 1988, approximately 13 percent of all leaf exports. In 1989, though, tobacco exports under GSM programs have declined substantially.

### **World Tobacco Market Has Tiers**

Since 1981, U.S. flue-cured prices have been 161 percent of the average world price for all leaf. Foreign cigarette manufacturers are willing to pay a premium for U.S. tobacco because it is needed to improve the taste of blends that consist mostly of lower quality domestic tobaccos.

As sales of U.S. cigarettes increase, the demand for U.S. leaf could decline in some markets but will increase in others. Forced to improve their blends to compete with U.S. cigarettes, some foreign

manufacturers are likely to import more high-quality U.S. leaf.

But high U.S. leaf prices are making it increasingly difficult to compete in some markets, especially for lower quality U.S. leaf. Further, as the quality of foreign tobacco improves, the amount of U.S. tobacco needed to bring the taste of a foreign blend up to acceptable levels will decrease.

### **U.S. Cigarette Exporters Penetrate New Markets**

U.S. cigarette manufacturers, facing declines in domestic consumption and in some key European markets, have attempted to penetrate markets where domestic cigarette manufacturers previously enjoyed protected markets. Increasing incomes in the Pacific Rim have made it a target for boosting cigarette exports.

Using Section 301 of the 1974 Trade Act, which authorizes the President to invoke retaliatory measures against countries engaged in trade practices detrimental to U.S. interests, U.S. cigarette manufacturers have obtained a foothold in Japan, South Korea, and Taiwan.

After negotiations with the U.S. Trade Representative, Japan and Taiwan reduced restrictions on imported cigarette sales. In 1987, imports to Japan increased from 2 percent to 10 percent of its domestic market (94 percent of Japanese imports are from the U.S.).

Imports to Taiwan went from 2 to 17 percent of its market (75 percent of all imports coming from the U.S.). Sales to South Korea increased after an agreement in mid-1988 opened more of that market to U.S. producers.

The Office of the U.S. Trade Representative is now trying to eliminate Thai restrictions on cigarette imports and bolster the U.S. share of that market. However, these efforts are being hampered by an alliance between U.S. antismoking groups and the Thai tobacco industry. [Tom Capehart (202) 786-1890]



## **World Agriculture and Trade**

### **Poland Restructures, Receives Food Aid**

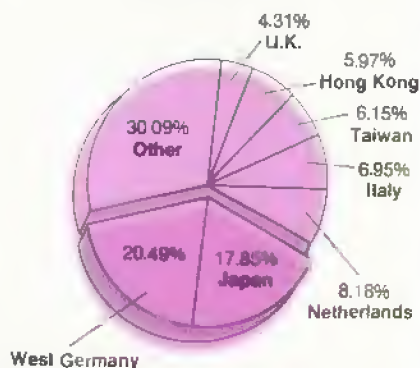
Eastern Europe is in turmoil and, recently, much in the headlines. Poland and Hungary are rapidly dismantling their centrally planned economies and one-party political systems in favor of a free market economy and parliamentary democracy. In Poland, the drastic changes are being forced from below, as the Solidarity trade union challenges the still-entrenched but demoralized Communist party.

In the background looms an unexpectedly tolerant USSR, preoccupied with its own political and economic reforms and rumblings of divisive nationality issues.

The most drastic changes occurred in Poland following the installation of the Solidarity-led government last August. The new government quickly formulated an ambitious program to overhaul the economy and dismantle the centrally planned system. The principal initiatives include:

- freeing prices from administrative controls,
- sharply cutting consumer and producer subsidies,

Japan, W. Germany Take Over a Third of U.S. Tobacco Exports



Exports for 1988



- expanding the private sector, plus converting at least some state-owned enterprises to private ownership,
- imposing market discipline on the government sector,
- separating the central bank from commercial banking and creating a private banking system,
- making the currency fully convertible on international money exchanges, and
- liberalizing international joint-venture legislation and offering other incentives to attract foreign capital.

The government plans to have most of this program in place in 2 years. Success, however, will depend to a large extent on addressing several pressing and critical problems. Among these are a foreign debt of some \$39 billion; the need for hard currency credits; poor access to modern technology; accelerating inflation, which is expected to reach 300 percent this year; and serious food shortages.

#### *Input Shortages Characterize Polish Agriculture*

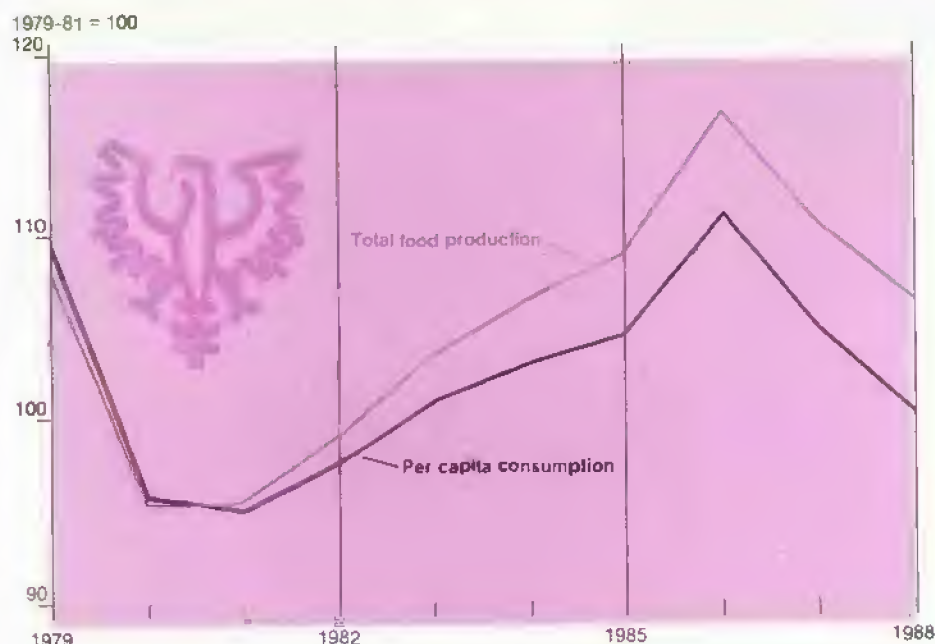
Close to 70 percent of agricultural land in Poland is in private farms. The maximum private holding is 100 hectares (247 acres), but the average private farm is only 5 hectares. These farms account for about 80 percent of gross agricultural output. Some 4,500 state farms of about 1,000 hectares each account for the rest of the land.

Many of the private farms are fragmented into several small plots, and all are undercapitalized. Many are operated by older people, as younger workers leave for city jobs.

The state farms are less efficient, and require large subsidies. Moreover, under the old central planning system, state farms were favored in the distribution of agricultural inputs.

Polish agricultural performance has improved dramatically since the severe declines following the imposition of martial law in the early 1980's. Most of the improvement was due to increases in grain production, which shot from less

#### **Poland's Food Production and Per Capita Consumption Are Falling**



than 20 million tons during 1976-80 to over 26 million in 1987 and may set a new record in 1989. There has been a large increase in rapeseed output as well, although potato and sugarbeet production have stagnated.

But livestock production, after rebounding in the mid-1980's, is now experiencing a setback. Red meat production for 1989 is likely to slip by 6 percent. The sector suffers from poor profitability and perennially tight feed supplies.

The feed situation is worse than usual this year because last year's grain production was down. And the government could not import the needed quantities because of hard currency shortages combined with relatively high world grain prices.

Agricultural production continues to be hampered by insufficient input supplies and a weak infrastructure, particularly inadequate storage and transportation facilities. Fertilizer use fell in 1989 for the third consecutive year, reflecting short supplies and high prices. There is a severe shortage of small machinery and spare parts.

Moreover, while Poland has an excellent network of agricultural research institutes, there is no effective extension service that can transmit the results of this research to the farmers.

#### *Prices Decontrolled*

Until this year, the government controlled both producer and consumer prices for food products. Through most of Poland's postwar history, the government has kept producer prices below world levels in order to maintain low and stable food prices. In the early 1980's, though, with the deterioration of the food situation and the rise of Rural Solidarity, the government yielded to pressure to improve rural living conditions and approved large increases in producer prices.

So producer prices increased four to six times between 1980 and 1987. However, in real terms these prices have been falling, while real input prices have risen rapidly, making it difficult for farmers to earn a profit. According to Polish sources, the ratio of farm income to the national average, which reached 111 percent in 1982, was only 83 percent in 1989.

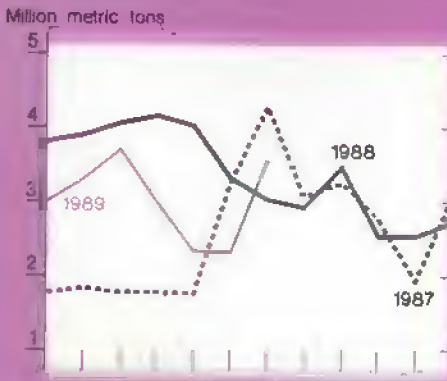
In 1989, the government enacted major legislation aimed at establishing free mar-

# U.S. Agricultural Trade Indicators

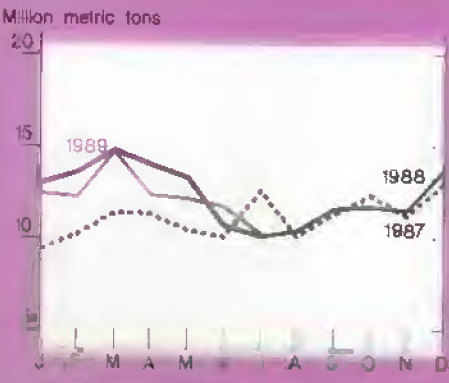
U.S. agricultural trade balance



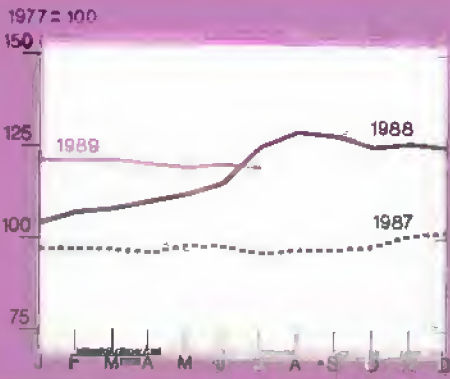
U.S. wheat exports



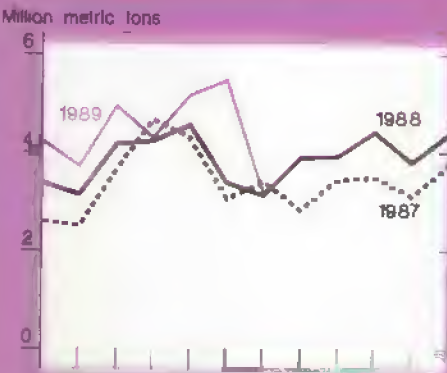
Export volume



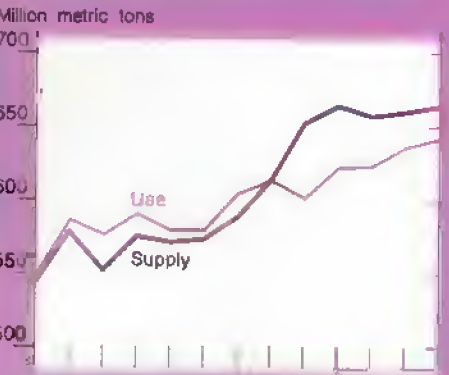
Index of export prices



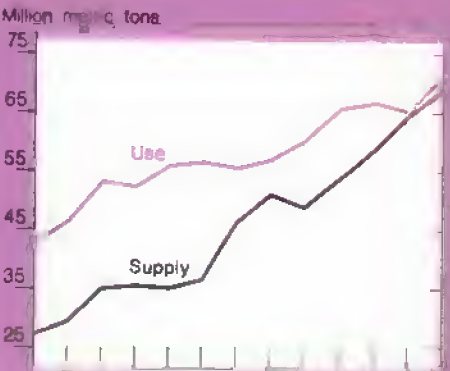
U.S. corn exports



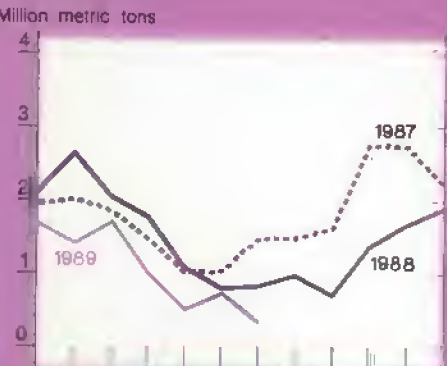
Foreign supply & use of coarse grains



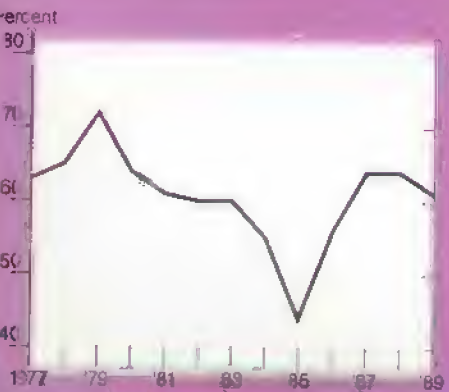
Foreign supply & use of soybeans



U.S. soybean exports



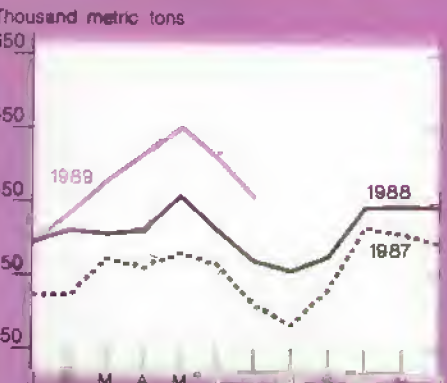
U.S. share of world coarse grains exports<sup>12</sup>



U.S. share of world soybean exports<sup>12</sup>



U.S. fruit & vegetable exports<sup>3</sup>



<sup>12</sup>Excluding intra-EC trade    \*October-September years

<sup>3</sup>Includes fruit juices.



Polish Per Capita Consumption of All Meats Hit a Low in 1984

	1979-81	1984	1985	1986	1987	1988	1989*
kilograms per person							
Beef and veal	17.1	16.0	15.1	17.7	17.3	17.9	17.1
Lamb and mutton	0.5	0.5	0.5	0.8	0.8	0.7	0.6
Pork	40.8	30.5	34.0	34.1	34.7	36.0	32.8
Poultry	10.7	6.0	6.2	8.1	8.6	8.5	9.8
Total	69.1	53.0	55.8	60.7	61.4	63.0	60.3

\*Preliminary.

Poles Eat More Pork, Less Beef and Poultry Than Americans

	U.S.	EC	Poland
kilograms per person, 1988			
Beef and veal	47.3	22.9	17.9
Lamb and mutton	0.7	3.8	0.7
Pork	30.8	36.8	36.0
Poultry meat	37.5	17.2	8.5
Total	116.3	80.7	63.0

ket conditions in the agricultural sector. Until the beginning of this year, virtually all purchases from farms were done by state purchasing monopolies. Farmers were allowed to make private sales, but the volume traded at free market prices was small, and in many cases the free market prices were not that much greater than state prices.

As of January, the monopoly of the state purchasing agencies was abolished, and it is now legal to purchase directly from farmers at free-market prices. An April decree abolished state control of producer prices.

The state now sets only guaranteed minimum prices, which were raised an average of 34 percent over previous official prices. In theory, there is no limit on how high farm prices can go.

The best known reform, however, which triggered the current crisis, was the August 1 decree removing legal restrictions on setting retail prices. The state will continue to set prices, but only for 2-percent fat milk, low-fat cottage cheese, infant formula, and plain bread. Otherwise, retail organizations are free to set the prices of basic food products in response to market forces. At the same time, the government ended meat rationing.

### Food Shortages Are Acute

Paradoxically, the immediate effect of these changes was a worsening of retail shortages. Farmers, protesting low prices, withheld their output. Because of logistical problems resulting from the country's poor infrastructure, few private outfits had ventured into the agricultural marketing field.

State enterprises continued to be just about the only buyers of farmers' products. Consequently, the actual prices paid to farmers remained close to the guaranteed level.

But state enterprises producing feed and industrial inputs were faced with sharply higher wage bills due to a wage-indexation plan negotiated by Solidarity. Thus, they had been allowed to raise their prices to a point at which farmers could not cover costs. Livestock producers, especially hog farmers, were particularly hard hit. Consequently, state-run slaughterhouses were operating at under half of capacity, leading to the retail shortages.

The situation is now improving and could stabilize soon. There are clearly strong pressures for producer prices to adjust. Recent reports indicate that there have been some substantial rises in producer prices, and that farmers are now selling their hogs in greater numbers.

Prices in the state retail stores also have continued to rise and appear finally to be cooling demand. In addition, there are reports of increased marketing activity outside the official channels and increased competition among state purchasers, who are now allowed to move outside their home territories to compete with state organizations in other regions.

Private markets are also expanding in the countryside. With the recent wage hikes, many buyers can afford to outbid the state procurement price, thus expanding private marketing channels and improving farm incomes.

The long-term solution to Poland's food problem will require drastic improvements in farm efficiency and cost control. Policy changes that have been suggested include a more effective drive to consolidate the country's fragmented private farms, improving transmission of new technology to private farmers, and eliminating transportation, storage, and marketing bottlenecks.

Most of all, however, there must be competition among enterprises producing inputs to hold down prices and ensure more reliable supplies.

### Food-Aid Needs Are Short Term

Despite the much-publicized long food lines and empty food shelves in Polish shops, Poles are not starving. Annual per capita meat consumption, at 63 kilograms in 1988, is approximately the same as in Norway, Spain, Sweden, and the United Kingdom. Although the food crisis may have brought consumption down to 60 kilograms this year, the shortage reflects structural problems rather than a lack of potential.

Total caloric intake, nearly 3,300 calories a day, is close to that of Western Europe, but markedly below that in the U.S. Despite declines in 1987 and 1988, production seems to be on the upswing again. The country is close to becoming self-sufficient in food, and may face only a short-term need for food assistance. So the current need for food assistance is principally to alleviate shortages and moderate price increases this winter.

This assistance is being debated in the U.S., Western Europe, and elsewhere. So far the U.S. government has approved food aid amounting to \$125 million, including \$8.4 million worth of food already provided this year.

Most U.S. assistance will come from current stocks of wheat, corn, sorghum, and butter, and will go as grants under P.L. 480 and Section 416 of the Agricultural

Act of 1949, as amended. In addition, 7,000-10,000 tons of pork bellies are to be donated under the Food for Progress Program.

The EC has agreed on an emergency food aid package of \$125 million, consisting of frozen beef, grains, citrus fruit, and olive oil.

Poland likely will sell the food on the domestic market to prevent further escalation of food prices and use the funds to help cushion the shift to a freer economy.

Some of the food has already been delivered, and tens of thousands of tons of meat, butter, and grain are on the way. There is considerable concern whether the limited storage facilities and weak distribution system can handle the shipments. Equally serious is the concern that this assistance not undermine Poland's emerging, and very fragile, agricultural market.

#### ***Longer Term Assistance Is Under Discussion***

The U.S. is proposing an additional \$160 million to stimulate free enterprise in Poland, \$200 million in balance-of-payments support and other aid, and \$30 million in environmental protection assistance. In addition, some members of Congress have proposed forgiving Poland's approximately \$2.3-billion debt to the Commodity Credit Corporation. Alternatively, a 5-year moratorium on the debt is being discussed.

The EC is discussing proposals to forgive a part of Poland's external debt and offer an assistance package of \$325 million. EC countries are considering individual aid packages as well.

The International Monetary Fund (IMF) is preparing a structural reform loan package of about \$1 billion. The fund would help Poland move toward a free-market economy. Disbursements would depend on the Polish government reaching an agreement on a reform plan with the IMF. [Nancy J. Cochrane (202) 786-1621 and Francis Urban (202) 786-1717]

## **Coffee Market in Turmoil**

U.S. coffee drinkers may be enjoying their least expensive cups of java in decades. For much of the last quarter-century, world coffee trade has been controlled by a group of exporters and importers, the International Coffee Organization (ICO), which set sales volumes and indirectly regulated prices. But, disputes over coffee sales to nonmembers and over the availability of mild arabica coffees led the ICO to drop export quotas in July.

Despite ongoing negotiations, there has been no resolution, and the outlook for managed coffee trade is clouded. Wholesale prices have plummeted to a 14-year low and may continue falling into 1990. The volume of trade will probably increase only slightly despite bargain prices. While the quota system has broken down before, concerns over major exporters' earnings and the drug war are adding urgency to the negotiations this time.

#### ***Prices Plummeted in July***

In the weeks after the quota ended, several major exporters—Brazil, Indonesia, and Mexico—began aggressively to sell their coffee. Brazil openly admitted its desire for a free market in order to gain market share.

Without quotas, the spot price of Brazilian coffee in New York fell 31 percent during July, from \$1.14 to 79 cents a pound, the lowest since July 1975. False rumors of an agreement temporarily boosted prices above 80 cents a pound, but they slipped below 70 cents in mid-autumn.

For all of 1989, retail coffee prices in the U.S. are projected to be down 10-11 percent in inflation-adjusted terms. The forecast is based on the relationship between wholesale prices of imported Brazilian coffee and U.S. retail coffee prices. Changes in wholesale prices tend to lead changes in retail prices. Import demand should increase by only 2-3 percent; demand for coffee is not very sensitive to price changes.

#### ***Coffee Agreement Dates Back to 1962***

Forty-two producing countries and 21 importing countries signed the original

International Coffee Agreement (ICA) in 1962, seeking to stabilize prices and supplies while supporting producers' incomes. Membership in the ICO has now swollen to 74 (50 producing members, 24 importing).

There are three major types of coffee: mild arabica, unwashed arabica, and robusta. Each type has its own distinct taste and quality. The arabicas generally receive a premium of 10 to 40 cents a pound over robustas.

Colombia, Mexico, Guatemala, and Costa Rica are the major exporters of mild coffees. Brazil is the major exporter of unwashed arabicas, while Indonesia and the Ivory Coast are the main exporters of robustas. The U.S. grows a little coffee in Hawaii and Puerto Rico.

The ICO enforced global export quotas during 1963/64-1972/73, 1980/81-1985/86, and 1988/89 through June 30. Under the quota system, each producing country is given a percentage share of the market for importing member countries.

Between 80 and 90 percent of all coffee traded moves between member countries. Under the 1983 agreement, the total amount of coffee to be traded was set by determining the level of world trade that would support a price between \$1.15 and \$1.45 per pound. This export level was set just prior to the coffee trade year, which begins on October 1.

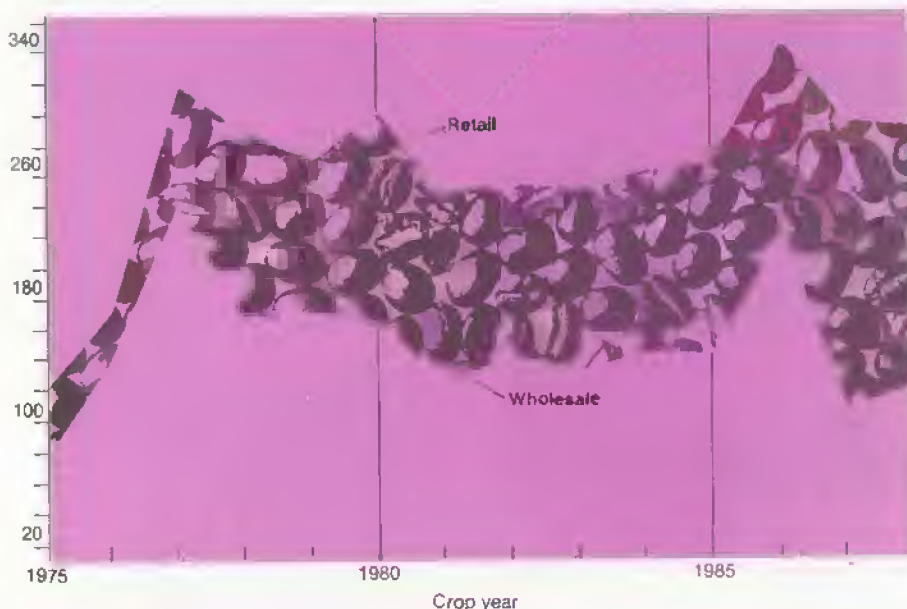
Under the terms set for the 1988/89 crop, if at any time the ICO indicator price fell below \$1.15 a pound for 10 consecutive working days, the total export quota was reduced by 1.5 million 60-kilogram bags. If the price exceeded \$1.45 per pound, the quota was increased by 1.5 million bags. Cuts and increases were shared proportionately among exporters. Only two quota changes were allowed per quarter.

The ICO presided over a \$12-billion coffee trade market. Coffee ranks third behind meat (\$18 billion) and wheat (\$14 billion) as the highest valued agricultural export commodity in the world.



## Wholesale-Retail Price Spread Wider for Coffee

Cents/pound (nominal)



### About Half of U.S. Coffee Imports Are Mild Varieties

Coffee and exporting country	Exports to the U.S. 1,000 60-kilogram bags October 1987-September 1988	Total exports
<b>Total</b>	<b>18,092*</b>	<b>62,240</b>
<b>Colombian milds</b>	<b>2,793</b>	<b>11,020</b>
Colombia	2,605	9,117
Kenya	167	1,280
Tanzania	22	623
<b>Other milds</b>	<b>6,560</b>	<b>14,590</b>
Costa Rica	397	1,954
Dominican Republic	422	424
Ecuador	1,127	1,195
El Salvador	879	1,878
Guatemala	785	2,222
Honduras	149	1,224
India	223	1,345
Mexico	1,736	2,419
Panama	76	148
Peru	457	718
Rwanda	94	493
Venezuela	96	173
Other	119	397
<b>Unwashed arabicas</b>	<b>5,212</b>	<b>20,979</b>
Bolivia	25	113
Brazil	4,885	16,840
Ethiopia	243	1,377
Paraguay	60	609
<b>Robustas</b>	<b>2,793</b>	<b>15,652</b>
Cameroon	53	1,576
Ivory Coast	774	3,590
Indonesia	860	4,435
Philippines	270	440
Thailand	255	449
Uganda	535	2,318
Other	46	2,844

\*Includes exports of 734,804 60-kilogram bags by nonproducing countries in Western Europe.

## Monitoring, Availability Are Key Issues

The decision to abandon quotas in July capped several years of disagreements within the ICO. The main issues are the sale of coffee to nonmembers and the availability of the different types of coffee.

Monitoring members is an important part of any commodity agreement that stabilizes prices. The ICO verifies stock levels and monitors export sales by member countries. Under the agreement, members were allowed to sell some coffee to nonmember countries.

But, to attract new business, some member exporters offered premium coffee at discount prices (25 to 50 percent) to nonmembers. Then, some of the nonmembers would re-export this coffee to member countries at reduced prices, making a profit on the markup and in effect circumventing the whole ICA.

The quality of the different coffees on the market varies greatly, and roasters in the importing countries complained that the export quotas were not dealing adequately with this problem.

Any reduction or increase in export supply, as determined by the export quota system, was done on a country-by-country basis using pre-set shares, with little regard for the type of coffee desired by importers. Now, under a free market, importers may purchase any type of coffee they choose—a major improvement from their point of view.

### The U.S. Favors New Agreement

Despite being a major coffee importer (taking 18.1 million 60-kilogram bags in fiscal 1988), the U.S. favors a new agreement, under certain conditions.

The U.S. delegation to recent negotiations argued that "any new pact must eliminate the practice of some producers selling coffee more cheaply to non-ICO members than to members and must allow high-quality coffee in demand to be more readily available." In particular, the U.S. would prefer more mild arabicas (Colombia and Central America) and fewer unwashed arabicas (Brazil) and robustas (Africa).

The Brazilians, on the other hand, are quite ready, at least for the time being, to maintain a free market in coffee. They believe a free market will eliminate high-cost producers and return to Brazil the bigger market share that it enjoyed in the 1950's and 1960's. In fact, Brazil's top coffee negotiator said in July that the free market represented war with the U.S., "because the U.S. does not support Brazil's approach."

Colombia would like to have a new agreement, and appears to be the most flexible of the major member countries. Colombia favors higher coffee prices, in part to offer farmers an alternative crop to coca (used to make cocaine). The government will have more trouble discouraging farmers from growing coca if coffee prices remain low. Coffee accounts for approximately half of all legal exports from Colombia.

The EC would like to end the distinction between quota and nonquota exports. According to the EC, there should be one quota for all countries. *[Stephen R. Milmo (202) 786-1824]*

## Upcoming Economic Reports

### Summary

#### Released Title

#### November

- 3 Fruit
- 8 Vegetables & Specialties Yearbook
- 9 World Ag. Supply & Demand
- 13 World Food Needs & Availabilities
- 14 Livestock & Poultry
- 17 Feed
- 20 Agricultural Outlook
- 21 Wheat
- 22 Foreign Ag. Trade Update
- 27 Cotton & Wool  
Livestock & Poultry Update
- 28 Exports



## General Economy

### Expansion To Continue

Assessments of the general economic situation have changed considerably over the last 12 months, shifting progressively across three main scenarios: an inflation spiral reminiscent of the late 1970's, a monetary policy-induced recession, and more recently, decelerating export growth due to the dollar's recent rise.

Adroit policymaking and midyear commodity price slides have eliminated the first two possibilities as probable outcomes over the coming 6 months. The current expansion is virtually assured to last well past its seventh birthday next month.

#### *An Inflation Spiral?*

In early 1988, strong overall demand and falling unemployment rates, coupled with high and rising capacity utilization, began to suggest the possibility of accelerating inflation. By mid-1988, the Chairman of the Federal Reserve Board warned that it might be necessary to slow the economy to prevent a wage-price spiral. The federal funds interest rate, often an indicator of the Fed's monetary policy, began to rise.

By the end of 1988, annual inflation had increased for three consecutive years. Consumer prices rose 1.8 percent in 1986, 3.6 percent in 1987, and 4.1 per-

cent in 1988. Producer prices showed a similar trend: a decline of 1.4 percent in 1986, a rise of 2.1 percent in 1987, and another increase of 2.5 percent in 1988.

In the first quarter of 1989, annualized inflation worsened considerably, approaching rates not seen since the early 1980's. Overall consumer prices grew at a 5.4-percent annual rate, while producer price inflation jumped to 10.2 percent.

But food and energy price hikes accounted for most of inflation's quickened pace. Producer prices for finished food products rose 5.2 percent in 1988, but spurted an annualized 13.1 percent in the first quarter of this year, perhaps because of the drought.

Producer prices of finished energy goods (gasoline, heating oil, etc.) ballooned at a 41-percent annual rate in first-quarter 1989, resulting from tighter OPEC production restrictions and global oil mishaps.

The Fed responded to rising inflation rates and signs that they would continue to accelerate. By the end of 1988, the Fed nudged up the federal funds rate by 2 percentage points. Believing that additional tightening of the money supply was necessary, the Fed pushed up the funds rate another percentage point in the first quarter of 1989, to its highest in 4 years.

Consequently, the bank prime rate jumped a percentage point, reaching 11.5 percent in the spring.

#### *Recession Fears Appear, Then Diminish*

Rising interest rates began to take a toll on interest-sensitive components of demand, housing and autos in particular. The economy slowed sufficiently that by the middle of the second quarter of this year, fears of an impending recession replaced worries over spiraling inflation.

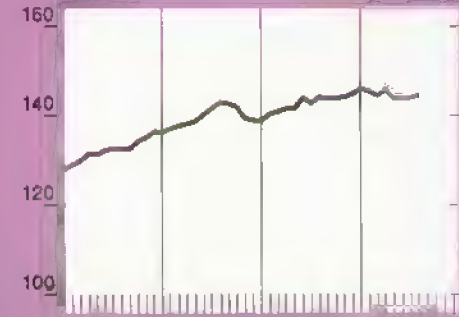
Recession questions surfaced with the slowing of industrial production, fluctuations in the index of leading economic indicators, and steady declines in housing starts. Excluding the rebound from a



# General Economic Indicators

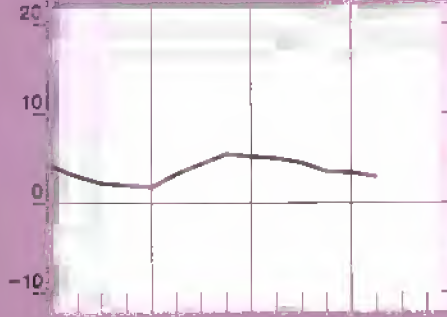
Composite leading economic indicators

1982 = 100



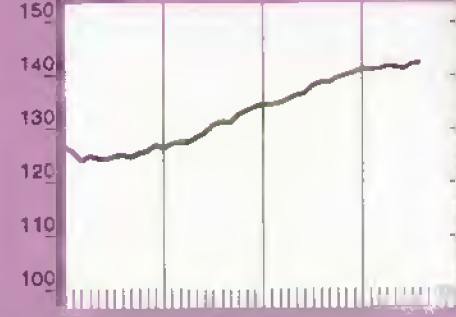
Gross national product<sup>1</sup>

Percent change from a year earlier



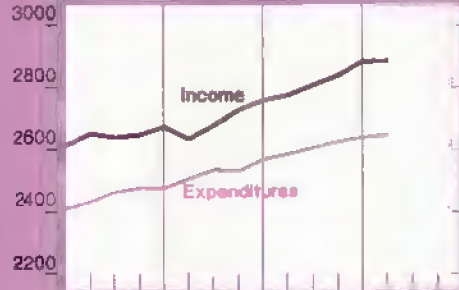
Industrial production

1977 = 100



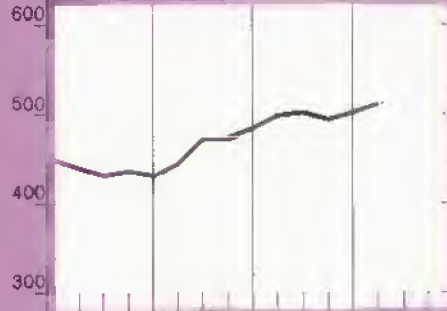
Disposable income and consumption expenditures<sup>2</sup>

\$ billion



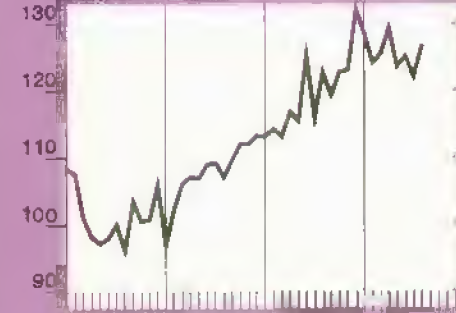
Nonresidential fixed investment<sup>2</sup>

\$ billion



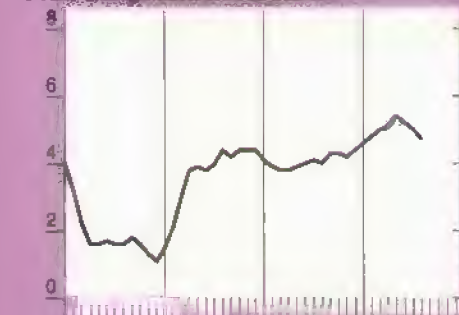
Manufacturers' durable goods orders<sup>3</sup>

\$ billion



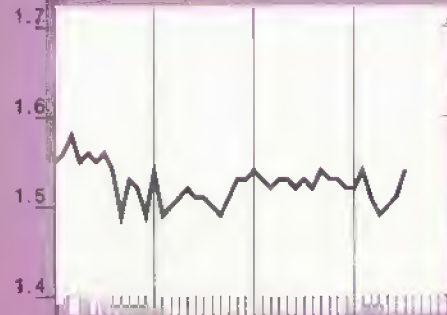
Consumer price index

Percent change from a year earlier



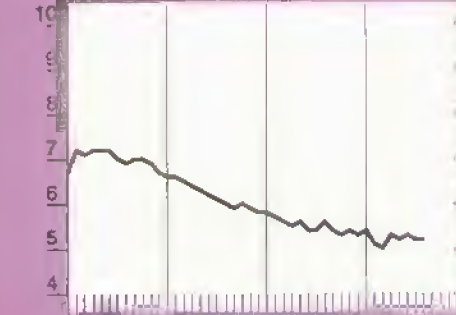
Inventory/sales<sup>4</sup>

Ratio



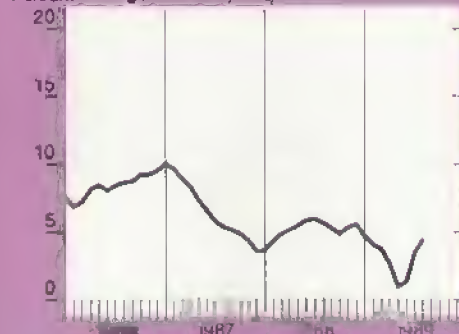
Unemployment rate<sup>5</sup>

Percent of all civilian workers



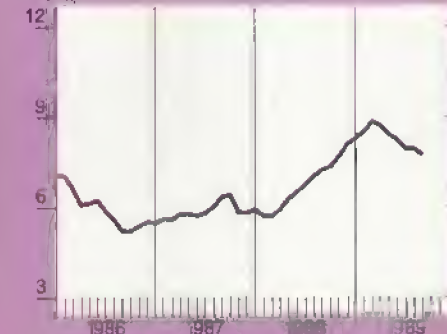
Money supply (M2)

Percent change from a year earlier



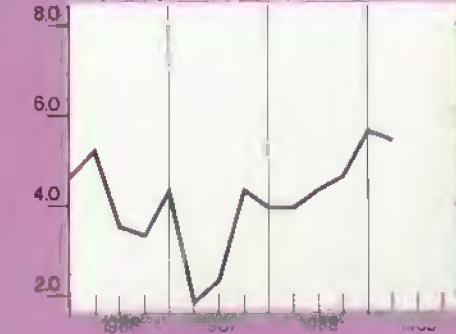
3-month Treasury bill rate

Percent



Savings rate<sup>6</sup>

Percent of disposable personal income



<sup>1</sup>Percent change from a year earlier in 1982 dollars. <sup>2</sup>Seasonally adjusted annual rates. <sup>3</sup>Billions of 1982 dollars, seasonally adjusted at annual rates.

<sup>4</sup>Nominal dollars. <sup>5</sup>Manufacturing and trade seasonally adjusted based on 1982 dollar. <sup>6</sup>Seasonally adjusted.

<sup>7</sup>Calculated from disposition of personal income in 1982 dollars, seasonally adjusted at annual rates.

Sources: U.S. Dept. of Commerce, U.S. Dept. of Labor and the Board of Governors of the Federal Reserve System

drought-reduced fourth quarter, real GNP grew only about 1.5 percent at an annual rate in the first quarter.

Producer and consumer price inflation finally began to moderate in the second quarter. However, industrial production and manufacturing employment continued to sputter, and the preliminary second-quarter real GNP growth estimate remained low, at an annualized 1.7 percent.

With inflation ebbing, the Fed eased monetary policy to ward off recession. The funds rate dropped 54 basis points in a 3-week period during the summer, prompting the prime interest rate to fall to 10.5 percent.

However, by the early fall, the situation had changed. Producer prices had fallen for 3 consecutive months, housing starts had begun to rise, and industrial production resumed a modest upward trend. In addition, strong consumer spending on durable goods, led by automobile incentive programs, buoyed the second-quarter GNP growth to a revised 2.5 percent annual rate.

A third-quarter Census Bureau survey of anticipated spending for plants and equipment for the rest of the year suggested continued robust growth. This signal, plus the general expectation that exports would continue to rise moderately, further lowered fears of a recession.

### ***The Export Outlook Depends on Dollar, Foreign Growth***

As inflation and recession fears dissipated during the first 3 quarters of 1989, concern began to mount about the rising value of the dollar. By September the dollar was up 12 percent from the first of the year. A rising dollar tends to reduce export volume and increase import volume after a lag, by raising the prices of U.S. exports and reducing the prices of imports.

Improvement in the real net export deficit accounted for 22 percent of increase in real GNP from the third quarter of 1986 through 1988, and 17 percent of the increase from the end of 1988 through the second quarter of 1989. Since much of the improvement in net exports was attributed to the dollar's decline since 1985, a rising dollar renewed fears that the overall economy would begin to slide.

While the dollar has gone up throughout 1989, it is still about 37 percent below its historic peak in 1985. Some analysts associated the recent rise with climbing U.S. interest rates and relatively slow money growth. With U.S. interest rates flat or slightly falling, some now expect the dollar's value to diminish.

In late September, finance ministers of the Group of Seven (G7) agreed that the dollar had risen too much, and G7 central banks began to intervene to bring it down. It fell about 2.5 percent against the yen and 3.2 percent against the West German mark in the week after the intervention began.

Whether the agreement will spark another period of sustained decline in the dollar is uncertain. On balance, though, it is likely that modest decreases or increases in the dollar will not cause export demand to vary much.

While dollar movements likely will be modest over the next few months, growth prospects for major developed countries suggest continued healthy demand for U.S. exports. International Monetary Fund (IMF) forecasts for 1990 put Japan's real GNP growth at 4.7 percent, West Germany's at 3 percent, and Canada's at 2 percent. Together, these three countries directly accounted for about 40 percent of U.S. exports.

IMF forecasts suggest continued robust real GNP growth in developing countries, which also accounted for about 40 percent of U.S. merchandise exports in 1988. Developing countries without debt problems are forecast to grow 5.7 percent, up slightly from the expected 5.3-percent rate this year, while those with debt problems likely will grow more slowly.

### ***The Overall Outlook Supports Farmers***

Solid foreign growth prospects and only modest changes in the value of the dollar point to continued moderate export increases. So, export demand will continue to put some pressure on U.S. manufacturing capacity, increasing the likelihood that spending on new plants and equipment will continue.

Barring an unforeseen runup in inflation, which might cause another round of Fed tightening, real GNP growth is likely to range between 2.5 and 3 percent. This is consistent with inflation in the 4.0-4.5 percent range, and stable to slightly falling interest rates.

So, the general economic environment looks likely to be mildly supportive of U.S. agriculture over the next 6-12 months. *[Elizabeth A. Mack and Ralph Monaco (202) 786-1782]*

### ***Upcoming Releases from the Agricultural Statistics Board***

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time the December *Agricultural Outlook* comes off press.

#### **November**

- 2 Egg Products
- 3 Poultry Slaughter
- 6 Dairy Products
- 7 Celery
- 9 Crop Production
- 14 Turkey Hatchery  
Farm Labor
- 16 Milk Production
- 17 Sugar Market Statistics  
Cattle on Feed  
Livestock Slaughter
- 20 Catfish
- 23 Cold Storage
- 25 Eggs, Chickens and Turkeys
- 27 Livestock Slaughter
- 28 Peanut Stocks and Processing
- 30 Agricultural Prices





## Resources

### Farmland Value Rebound Is Slowing, Appraisers Say

According to a national survey of appraisers in early August, farmland values are likely to continue rising over the next year, but at a slower rate than in the past year. U.S. farmland values are expected to average 3.5 percent higher in August 1990 than a year earlier, about half the 6.5-percent average increase reported for August 1988-1989.

The appraisers expected U.S. farmland values to rise an average 0.7 percent during August-October 1989. Such an increase would fall short of the 1.3-percent gain they reported for the preceding 3 months, and the 2.2-percent growth in February through April.

Appraisers pointed to a variety of factors affecting farmland values within their regions. Lower commodity prices were the most commonly cited reason for the slower expected growth.

#### *Regional Values May Not Rise As Fast Next Year*

The strongest regional increase during August 1989-1990 is expected in the North Central region (up 4.8 percent), but this still would be a much smaller increase than the 9.5-percent gain

#### About the Appraisers' Survey

A panel of 500 rural appraisers, accredited by the American Society of Farm Managers and Rural Appraisers, participates in quarterly surveys of farmland values. Because appraisers provide not only opinions on short-term changes in values but also opinions on longer term expected shifts, their information complements the Economic Research Service's annual surveys of farmland values.

Appraisers focus on value changes during the past 3- and 12-month periods and

reported for the previous 12 months. Appraisers cited commodity prices and strong demand from farmers expanding operations as the principal factors affecting value changes in both 12-month periods.

While corn and soybean prices remain relatively high compared with recent years, current prices are lower than last year and may have contributed to the less optimistic outlook. In contrast, high and rising wheat prices are likely providing strength to the region's land values.

Appraisers in the South expect a movement toward more stable values. About 75 percent reported higher values during 1988-1989; only 10 percent indicated unchanged values. Their estimates for August 1989-1990 indicate that about 60 percent expect higher values, while 30 percent expect unchanged values.

This shift toward stability is reflected in Southern appraisers' expectations of a 2.7-percent increase in values during August 1989-1990, compared with a reported 5.5-percent increase during the preceding 12 months.

Principal factors behind the 2.7-percent increase expected in the South are commodity price movements, lower interest rates, and improving farm incomes. During the past year, the appraisers said high commodity prices, government programs, and favorable weather contributed to higher farmland values in the South.

also on expected changes over the next 3- and 12-month intervals. Individual responses are weighted to regional averages according to the acres of land in farms within each reported area. Similarly, regional averages are weighted by acres of land in farms to develop national weighted averages.

Beginning this year, surveys are being conducted around the first of October, January, April, and July. Previous surveys were taken in early May, August, and November. The Wisconsin Survey Research Laboratory conducts the surveys for the Economic Research Service.

Appraisers in the West generally expect a slightly smaller increase (3 percent) over August 1989-1990 than the 4.1-percent growth during August 1988-1989. High commodity prices, including cattle, and stronger demand by nonagricultural investors are the most frequently cited factors behind the increases.

Values in the Northeast are expected to average 1.4 percent higher during August 1989-1990, half the reported 2.8-percent increase a year earlier. Higher inflation and a generally improved economy fueled increases during August 1988-1989. Lower interest rates and improvements in farm incomes are expected to contribute to next year's increase, according to the appraisers.

#### *Most Federal Reserve Banks Also Report Slower Rise*

Agricultural bankers surveyed in late June in the Chicago district reported that values for "good" farmland averaged 1 percent higher during the second quarter, down from the 3-percent gain during the first quarter. However, a slower second-quarter increase following the planting period is considered typical.

About three-fourths of the Chicago district bankers were of the opinion that the current trend in farmland values is "stable," while 20 percent characterized the trend as "higher." The district includes Iowa, southern Wisconsin, northern portions of Illinois and Indiana, and Michigan except for the Peninsula.

# Rural Appraisers' Expectations: Farmland Value Increases To Slow Most in Northeast

Period	West	North Central	South	North-east	U.S.
Percent					
Nov. 1988-89	3.4	5.2	2.9	5.2	4.0
May 1989-90	3.3	4.5	2.4	2.4	3.4
Aug. 1989-90	3.0	4.8	2.7	1.4	3.5

November 1988-89 data are from the November 1, 1988 appraisers' survey, the May 1989-90 data are from the May 1, 1989 survey, and the August 1989-90 data are from the August 1, 1989 survey.

# Farmland values Likely Were Up Most in North Central States

Periods of 1989	West	North Central	South	North-east	U.S.
Quarterly percent change					
Feb. 1-Apr. 30*	1.4	3.6	1.4	0.4	2.2
May 1-July 31	0.8	1.6	1.6	0.1	1.3
Aug. 1-Oct. 31	0.6	1.2	0.2	0.1	0.7

\*from the May 1, 1989 appraisers' survey. Data for later periods are from the August 1 survey.

# Every Region Sees Slowing of Farmland Value Rise



Top number: Expected percent change, August 1989-90.  
Bottom number: Reported percent change, August 1988-89.

Source: August 1989 survey of accredited rural appraisers.

Bankers in the Kansas City district indicated higher second-quarter average values for nonirrigated cropland (up 1.6 percent), irrigated cropland (up 2.6 percent), and ranchland (up 1.3 percent). However, the bankers said that the increases remained below first-quarter gains, when nonirrigated and irrigated cropland and ranchland averaged 3.2,

4.0, and 3.5 percent higher. Kansas, Nebraska, Wyoming, Colorado, Oklahoma, northern New Mexico, and western Missouri are in the Kansas City district.

Bankers in the Dallas district thought that irrigated cropland values averaged 3.3 percent higher during the second quarter, compared with a 1.7-percent rise in the first quarter. Unchanged dry crop-

land values and slightly lower ranchland values represent improvements relative to surveyed first-quarter declines.

Values are based on a three-quarter moving average of survey responses. Bankers in the Dallas district expected farmland values to remain stable during the third quarter. The district includes Texas, southern New Mexico, and northern Louisiana.

# Strong Income, Moderate Inflation Behind Outlook

A number of factors support the outlook for mild increases in farmland values. Net farm income, which measures the value of annual agricultural production less costs, is forecast to exceed the 1987 record this year.

Interest and inflation rates are expected to average moderately higher for 1989. Higher interest rates cut the demand for farmland, but higher inflation rates boost the demand. Returns to farm equity are forecast between 4 and 5 percent, up from last year's 3.5 percent.

Farm real estate debt is expected to increase slightly in 1989, but higher asset values may offset the increase, so that the ratio of debt to equity may be down slightly from last year. The Conservation Reserve Program has strengthened values of below-average cropland in some areas.

However, other factors support slower increases in farmland values. Farmers have become more cautious in their investment decisions since the farm financial crisis of the early and mid-1980's. And because land values embody profits expected for the next decade, the recent slowing could reflect concerns about long-term trends in commodity prices, the 1990 farm bill, the GATT negotiations, and the Europe 1992 unification plans. [Roger Hexem (202) 786-1422]



## Patents May Boost Plant Research

Since 1970, Federal legislation and court decisions have expanded the system of granting patents to those who develop new plant varieties. The enhanced patenting may be a catalyst to private agricultural research spending, which in turn could substitute for some direct government spending on research and development.

### Plant Patents Relatively New

Patents in the U.S. for most innovations have been available since 1790. But researchers could not get a patent for new plant varieties until 1930, when Congress passed the Plant Patent Act. The act protects most plant varieties of crops that reproduce asexually (i.e., through grafting or budding). Sexually reproducing crops (such as corn, wheat, and soybeans) were excluded, in part because Congress was concerned that seed breeders could gain monopoly power over staple crops.

To acquire a plant patent (PP), a breeder must prove that the variety is distinct and must describe it, but the description may be in botanical terms (as opposed to the more stringent regular patent descriptions). The Patent and Trademark Office issues a plant patent for 17 years, which allows only the patent holder to asexually reproduce, sell, or use the plant.

However, because protection does not extend to seed produced by the protected plant, others may try to replicate the plant through sexual reproduction.

A second law, the Plant Variety Protection Act (PVPA), was passed in 1970 and amended in 1980; it provides patent-like protection for most sexually reproducing varieties for 18 years.

The act contains two exemptions. First, protected varieties can be used in research programs. Second, farmers whose primary occupation is growing crops can plant or sell their harvested seed.

The second exemption may be critical, because the total seed that farmers as a group may sell can take up a substantial

part of the seed market. In just one case, a farmer sold 1.42 million pounds of a protected variety, and by all appearances increased his farm production to increase seed sales.

To gain a plant variety protection certificate (PVPC), a breeder must prove the variety is distinct, uniform, and stable. Protection begins when the breeder applies for a certificate. USDA grants the certificates.

However, the Secretary of Agriculture can declare a particular variety open for use in some cases, such as when a drought or devastating disease strikes a particular crop, to guarantee an adequate supply of food and fiber.

### Court Cases Help Breeders

In the 1980 *Diamond v. Chakrabarty* case, the Supreme Court decided that micro-organisms were patentable. In 1985, the *Ex parte Hibberd* case extended the Chakrabarty ruling to plants, seeds, tissue cultures, hybrid plants, and hybrid seeds.

As a result, plants now may be protected by what is called a utility patent (UP). A UP applies to both asexually and sexually reproducing crops, lasts for 17 years, and is issued by the Patent and Trademark Office. A UP is more restrictive than a PP or PVPC; it does not contain a farmer or research exemption clause and can cover multiple varieties or individual components of a variety.

To the patent holder, a UP has four disadvantages compared with a PP or PVPC:

- the patent applicant must provide full disclosure of the technology used to develop the variety, rather than a simple botanical description that obscures the technique;
- the holder must have the patented material stored in a depository. While depositories exist, most are set up for micro-organisms and few want to take on seeds or full plants for the time that is required, which is approximately 35 years;

- the filing and issue fee for a UP is much greater than it is for a PP, although the costs of UP's are deferred for several years;

- protection begins only after the UP has been granted.

Another, nonpatent means of protecting an innovation—trade secrecy—offers protection through a process of written agreements; moreover, the breeder is not obligated to disclose the new plant's technology.

In crops, trade secrecy is often achieved by using hybrid technology. Hybrids are the first generation between selected parents, so the traits of the hybrid often do not carry over to the second generation of plants. Thus, hybrids cannot be replicated easily.

This year, hybrid corn makes up about 24 percent of the world commercial seed market. Hybrid varieties are used in about 95 percent of U.S. sugarbeet and sorghum plantings. And hybrids account for more than half of U.S. spinach, sunflower, broccoli, onion, and summer squash plantings.

### Plant Patents Growing

Approximately 7,000 PP's were issued between 1931 and September 1989. Of these, 1,203 were issued in 1963-73, 1,754 in 1974-83, and approximately 1,800 in 1984-September 1989. About 70 percent have been for flowering plants and shrubs, approximately 20 percent for fruits, and the remainder for trees, lawn grasses, and hops.

PVPC's issued between 1971 and January 1984 totaled 1,199, with another 1,015 through September 1989. About 15 percent were issued for varieties developed by the public sector. Soybeans, peas, beans, wheat, and cotton accounted for 56 percent of the certificates issued; soybeans and wheat, by themselves, represented 32 percent.

To date, according to the Congressional Office of Technology Assessment, 42 UP's have been issued, including 9 for corn, 6 for sunflowers, 5 for soybeans, 3 for wheat, and 2 for corn and wheat jointly. However, it is too early to tell

### A Plant Patent Is Least Expensive

Type of property rule	Filing fee*	Issue fee*	Maintenance fee		
			After 3-1/2 years	After 7-1/2 years	After 11-1/2 years
Plant patent	\$250	\$155	0	0	0
Plant variety protection certificate	\$250	\$2,150	0	0	0
Utility patent	\$370	\$310	\$490	\$990	\$1,480

\*For the plant patent and utility patent, the fees are half this cost for small entities, which must have less than 500 employees. For the plant variety protection certificate, the issue fee is split into \$1,900 for examination and \$250 for issue.

Sources: Patent and Trademark Office, and Plant Variety Protection Office, USDA/AMS.

### Private Share of Plant Breeding Expenditures Has Grown

Year	Public	Private	Private as share of total
-----			
	- - - Real \$ millions - - - (1984=100)		Percent
Hybrid corn			
1960	16.5	11.0	40
1965	18.5	13.4	42
1970	21.2	18.8	47
1975	26.0	28.9	53
1979	27.5	43.6	61
1984	36.8	59.2	62
Soybeans			
1960	9.8	a	--
1965	10.9	0.2	2
1970	14.7	1.0	6
1975	23.9	5.9	20
1979	40.6	9.5	19
1984	41.9	13.2	24
Small grains			
1960	22.5	a	--
1965	26.6	1.5	5
1970	29.2	4.1	12
1975	35.7	8.8	20
1979	49.4	9.6	16
1984	74.5	13.0	15

a: less than \$0.05 million.

Source: W. Huffman and B. Evenson, staff paper no. 170, Department of Economics, Iowa State University, 1987.

how much the private sector will use UP's for plant protection.

### Economic Effects Unclear

Because it can take up to 30 years for the initial investment in research and development (R&D) to result in a marketable plant patent, the effects of better patent protection on R&D spending are unclear. Both the runup in commodity prices in the 1970's and the passage of the PVPA coincided with increases in investment.

Nevertheless, certain commodities show rapid increases in private-sector involvement. Private seed research in soybeans and small grains (wheat, barley, oats, rye, and rice), which was insignificant prior to 1960, has increased dramatically. Private-sector involvement in hybrid corn seed research developed earlier and so is more substantial.

Public funding for seed research also has increased. Breakthroughs in private product development would often not be possible without complementary basic research carried out by public institutions. The public sector accounts for over 80 percent of the dollars spent on basic scientific agricultural research.

There has been a noticeable increase in consolidations in the seed industry as numerous seed firms have been acquired by larger agricultural input suppliers. This move, combined with greater patenting, has raised concerns about the possibility of less competition in the seed industry. Continued public applied research and product development may be useful in cases where patenting and industry consolidations do lead to reduced competition.

More research is needed to determine to what extent the PVPA has enhanced seed research and whether it has affected seed-industry competitiveness. Clearer answers to these questions will help guide policymakers in allocating public funds for agricultural R&D. [Mary K. Knudson and George B. Frisvold (202) 786-1462]





### Liberalizing World Trade in Tobacco

*This is the fourth in a series summarizing research on what could happen as negotiations under the GATT (General Agreement on Tariffs and Trade) move toward free trade in agriculture. Negotiators at the April review of the Uruguay Round agreed to "substantial progressive reductions in agricultural support and protection over an agreed period of time."*

*While there are adjustment costs involved in moving away from protectionism, both theory and research results suggest that the benefits of free trade outweigh the costs. But because there never has been free trade in agriculture, the findings in these articles are, of necessity, speculative. The results here come from research conducted by the Economic Research Service, universities, and international organizations. A longer, in-depth research report lies behind each article, and will be available from the authors.—Ed.*

Research suggests that phasing down worldwide government support and protection of agriculture would lower world tobacco prices, although prices would continue to vary considerably between different kinds and crop qualities. World tobacco output and consumption would rise slightly. World trade also would go up.

U.S. leaf production would almost surely increase as farmers' production quotas were phased out, and exports would rise. But prices growers receive would fall as price supports were phased out. With quotas gone, quota-owners' land values would fall. Geographic patterns of U.S. production would shift, and some growers likely would leave farming, unless the government made income-support payments that did not distort trade.

#### *Why Trade Tobacco?*

Tobacco is grown in much of the world. Even so, tobacco leaf, cigarettes, cigars, and other processed tobacco products are heavily traded. "Leaf" refers to unprocessed and partially processed tobacco. About 30 percent of tobacco is consumed in a country different from that where it was grown.

Some countries do not produce tobacco, or not enough to meet domestic demand. Also, because cigarette blends use different kinds of tobacco that are not all grown in the same country, imports are needed for local manufacturing.

For example, the U.S. does not produce oriental or turkish tobacco, which has been an essential ingredient in blended cigarettes since early in this century. Other countries that both export and import substantial quantities of tobacco include Italy, Japan, Poland, and Hungary.

Tobacco is also traded on the basis of quality differences, with manufacturers buying to acquire the lowest cost mix needed to meet local demand. The U.S. has been acclaimed as the grower of the highest quality tobacco in the world, but its leaf is also among the most expensive.

#### *Tobacco Trade Has Risen, But Slowly; U.S. Has Lost Share*

During the last two decades, tobacco trade has risen but production has risen faster. At the same time, the U.S. share of world trade in leaf and products has steadily declined, going from 27 percent in 1970 to about 16 percent in 1987. While the U.S. share of cigarette trade rose from 20 to 26 percent, the U.S. share of leaf trade fell from 28 to 14 percent. The drop reflects the high support prices in the U.S., and the government policies of countries that make up the traditional U.S. export market.

In many countries, including the U.S., tobacco production is regulated. Exports from a number of countries are encouraged through bilateral trading agreements, trade on concessional terms, export premiums, or export subsidies.

Imports are subject to various government measures, such as tariffs, licenses, foreign exchange requirements, import quotas, mixing regulations (which govern the percentage of domestically grown tobacco required in manufactured products), restricted product lists, and prior deposits.

## How Liberalization Would Affect World and U.S. Tobacco Trade



In addition, tobacco and tobacco products are used throughout the world as a major source of government revenue; in many countries, tariffs and taxes represent more than half the selling price of tobacco products.

### Technology Lowering Demand

Tobacco is not a homogeneous product. Natural soil and climatic conditions, together with cultivation, curing, redrying, fermenting, and aging practices, produce various kinds and qualities of leaf.

The differences in type and quality and the suitability of leaf for manufacturing are reflected in a complex system of price differentials. The wide variation in leaf qualities has precluded computing a single world price.

There is a worldwide shift toward the American-blend cigarette, which often requires high-quality flue-cured and burley tobacco produced in the U.S. But other changes are having an opposite effect.

New technologies are lowering not only leaf requirements per cigarette but also the proportion of high-quality leaf needed. Leaf-conserving technologies have increased filling capacities (the quantity of leaf needed per cigarette), and other technologies now permit the use of the entire leaf.

These developments tend to weaken the price premium that suppliers such as the U.S. can command in world tobacco markets. More to the point, these changes likely will

weaken global demand for tobacco in the coming years, and offset some of the trade-enhancing effects of trade liberalization.

### Domestic Policies Affect Trade

The level of government support provided to tobacco growers varies widely among producing countries. The EC's Common Agricultural Policy uses intervention purchasing at guaranteed prices, variable levies, and export subsidies to shield internal prices from world prices. The U.S. uses price supports and production controls.

Price and income supports are not the only policy tools used to support tobacco growers. Mixing regulations or import quotas are used in Australia, Brazil, and Mexico. Licensing is required to trade with Brazil and the EC, while pesticide restrictions are enforced in the U.S. and some European countries.

Input subsidies are provided for tobacco growers in the U.S., Brazil, India, South Korea, Canada, and Indonesia. Tariffs are imposed on imports into the U.S., the EC, Brazil, South Korea, Zimbabwe, and Canada. Government-run monopolies control the manufacturing and marketing of tobacco products in many South East Asian countries. Tobacco growers in China, the USSR, and other centrally planned economies also face substantial government involvement in agriculture.



# Government Tobacco Programs Are Widespread in Producing Countries

Support programs	Trade programs	
Price supports	Tariff barriers	Mixing regulations or import quotas
United States European Community Japan Brazil India Zimbabwe Argentina	United States European Community Brazil South Korea Zimbabwe Canada Argentina Australia Bulgaria China Czechoslovakia Dominican Republic Egypt Guatemala Honduras Hungary India Indonesia Jordan	Australia Brazil China Czechoslovakia Finland Honduras India Kenya Malawi Philippines Poland Romania Senegal South Africa Syria Tanzania Zimbabwe
Marketing restrictions		Licensing
United States European Community Japan Canada		Argentina Ecuador Ethiopia European Community Guatemala Honduras India Indonesia Kenya Mexico Pakistan Paraguay South Africa Sudan Thailand
Input subsidies		
United States Brazil India South Korea Canada Indonesia	Malaysia Mexico New Zealand Pakistan Philippines South Africa Taiwan Thailand Turkey Uruguay USSR Venezuela Yugoslavia	

## Most Efficient Producers To Gain From Reform

The U.S. currently provides a price umbrella for tobacco trade throughout the world. In the U.S., about 97 percent of production is under a government price support-production control program that keeps prices 20 to 30 percent higher than they would be without a program. Phasing out supports and the subsequent drop in U.S. prices would boost U.S. exports because of the tobacco's overall superiority.

Furthermore, the U.S. is already cost-competitive with countries such as Canada and Australia and would be even more so in a liberalized environment. Moreover, costs appear to be accelerating in some countries such as landlocked Zimbabwe and Malawi.

But, the U.S. under trade liberalization would still be at a cost disadvantage in supplying lower quality filler tobaccos, because growers in many other countries use a higher proportion of family labor and have fewer alternatives to growing tobacco.

On balance, though, U.S. leaf exports might well increase by 25 to 50 percent under full liberalization. U.S. leaf imports of flue-cured and burley likely would decline also.

## Zimbabwe, Brazil Would Ship More, Canada Less

With trade liberalization, U.S. shipments to the EC, Canada, and several Asian countries would increase. Zimbabwe and Brazil also would ship more. However, precise shipment patterns are difficult to predict.

Canada's tobacco has a relatively neutral flavor, does not command a premium price, and its growers face a high risk of frosts. With weakening domestic demand, the government is helping growers to switch to alternative crops. While there are no constraints now on imports, Canada might import more lower priced leaf in a freer trade environment.

The U.S. might increase shipments to Canada, but likely would gain more ground in some of Canada's export markets.

Trade liberalization would push down production in the EC, perhaps sharply, and the Community's tobacco imports would rise. U.S. exports would share in the increase.

Japan, the major U.S. market, has substantially liberalized trade in leaf and cigarettes. Under full liberalization, its imports likely would rise slightly.

## U.S. Tobacco Production Down About 10 Percent From the 1930's

Average production				
Country	1935-39	1975-79	1980-84	1985-88
Million pounds*				
Brazil	202.7	721.2	813.9	895.6
Bulgaria	na	327.2	318.3	276.2
Canada	76.6	214.4	217.1	158.5
China	1,338.6	2,376.1	3,396.0	4,734.2
Greece	132.8	279.8	276.8	317.1
India	761.0	916.7	1,114.2	953.6
Italy	95.5	254.8	317.0	364.4
Japan	148.7	277.9	181.9	228.5
Turkey	128.5	564.8	453.8	401.1
U.S.	1,460.1	1,960.2	1,800.8	1,309.4
Soviet Union	na	669.3	716.1	680.7
Zimbabwe	26.2	213.6	225.5	265.0
Subtotal	4,370.7	8,776.1	9,831.2	10,582.3
Other countries	2,248.6	3,659.8	3,660.7	3,594.0
World total	6,619.3	12,435.9	13,491.9	14,176.3
Percent				
U.S. share of world tobacco	22	16	14	9

na = not available. \*Farm sales weight.

Australia was the third largest export market for U.S. tobacco in the late 1950's. More recently, however, Australia increased grower subsidies, and it now imports less than half of what it once did. Moving to freer trade, which Australia is beginning to do, would mean more imports, but not necessarily from the U.S. Australians do not now have a strong taste for U.S. leaf.

Shipments, mostly from the U.S., probably would increase to the non-EC Western European countries—particularly Finland, Norway, Sweden, and Switzerland. These countries produce little tobacco, and likely would grow even less with freer trade.

The GATT trade liberalization initiatives aimed at agriculture would apply globally. But some developing countries likely would receive special treatment under a GATT agreement, to continue developing their agricultural sectors. Several centrally planned economies may participate somewhat in an agreement, but they are not formally committed to trade liberalization.

Even with trade liberalization, changes in the world market would take place gradually. Trade commitments, product blends, tastes, alternative crops, and a host of other factors influence how markets might shift. Tobacco product consumption in the world and within various countries also would affect trade flows.

#### *Effects on Consumption Would Be Small*

Since numerous studies have shown that the demand for cigarettes is not very responsive to changes in price, global consumption probably would rise only slightly.

Several factors have been at work minimizing the effects that price-distorting practices have had on consumption. Technological advances have allowed manufacturers to use more lower quality leaf in cigarettes and other tobacco products without reducing the quality of the product. Furthermore, technologies are continually reducing the quantity of tobacco used per cigarette. With these changes, the effects of higher leaf prices on consumption have been dampened.

This tendency has been reinforced by the small portion of cigarettes' cost—generally less than 10 percent per pack—attributable to leaf costs. Consequently, even sizable leaf-price changes result in a much smaller change in consumption than would be true for many other agricultural products.

Estimating price effects is further complicated by the fact that medical studies show high correlations between various diseases and the use of tobacco products. Many countries have highly visible antismoking campaigns, together with rising restrictions on where people may smoke.

Separating the effects of health concerns and price is extremely difficult. Hence, even with the somewhat lower leaf prices likely under trade liberalization, total consumption of tobacco probably would rise only slightly, perhaps only 5 to 10 percent.

Under GATT, changes in domestic sales and excise taxes on tobacco products are not being negotiated. However, if taxes on tobacco products were removed throughout the world, consumption might well increase considerably more than with free-market changes in leaf prices. Prices would fall much more if taxes were eliminated.

#### *U.S. Land Values Would Drop*

With complete elimination of the U.S. price support-production control program, U.S. prices likely would fall 20 to 30 percent, until all costs of production, excluding quota rental or lease costs, were covered. The value of quotas, which are now capitalized into farmland values, would fall to zero. This could result in a loss of \$400 to \$500 million per year to quota owners. Furthermore, land values likely would decline by \$2-\$3 billion.

Taxpayers would benefit, though, as federal administrative expenditures on tobacco programs would fall about \$10 million annually. Program operating costs are now covered through assessments on growers and purchasers.

Tobacco would be grown in more efficient areas within the U.S. Flue-cured production would generally shift from the piedmont of North Carolina and Virginia to the coastal plain of North Carolina, border belts of North Carolina and South Carolina, and Georgia-Florida.

Burley production would tend to concentrate in the Bluegrass and south central areas of Kentucky, in eastern Tennessee, and in the western Pennyroyal of Kentucky and Tennessee. These shifts would further lower costs of production and boost export prospects. [Verner N. Grise (202) 786-1890]



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# Statistical Indicators

## Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1988	1989					1990			
	Annual	I	II	III	IV F	Annual F	I F	II F	Annual F	
Prices received by farmers (1977=100)	138	143	141	137	--	140	--	--	--	
Livestock & products	150	159	155	158	--	157	--	--	--	
Crops	126	138	137	132	--	132	--	--	--	
Prices paid by farmers, (1977=100)										
Production items	157	163	165	165	--	168	--	--	--	
Commodities & services, interest, taxes, & wages	170	175	177	178	--	180	--	--	--	
Cash receipts (\$ bil.) 1/	151	156	161	171	--	153-161	--	--	--	
Livestock (\$ bil.)	79	84	81	81	--	78-82	--	--	--	
Crops (\$ bil.)	73	71	80	90	--	75-79	--	--	--	
Market basket (1982-84=100)										
Retail cost	116	122	124	125	--	--	--	--	--	
Farm value	100	107	108	107	--	--	--	--	--	
Spread	124	131	133	135	--	--	--	--	--	
Farm value/retail cost (%)	30	30	30	30	--	--	--	--	--	
Retail prices (1982-84=100)										
Food	118	123	125	126	126	125	--	--	--	
At home	117	122	124	124	124	123	--	--	--	
Away from home	122	125	127	129	130	128	--	--	--	
Agricultural exports (\$ bil.) 2/	35.3	10.9	9.8	9.0	9.5	40.0	--	--	--	
Agricultural imports (\$ bil.) 2/	21.0	5.8	5.5	5.0	5.2	21.5	--	--	--	
Commercial production										
Red meat (mil. lb.)	39,763	9,594	9,871	9,853	10,093	39,411	9,650	9,767	39,325	
Poultry (mil. lb.)	20,587	5,070	5,539	5,700	5,600	21,908	5,510	5,940	23,375	
Eggs (mil. doz.)	5,772	1,391	1,394	1,390	1,460	5,635	1,415	1,420	5,770	
Milk (bil. lb.)	145.5	36.6	38.0	35.5	35.6	145.7	37.1	38.9	148.7	
Consumption, per capita										
Red meat and poultry (lb.)	218.3	52.5	54.2	55.0	57.5	219.1	53.8	55.2	222.3	
Corn beginning stocks (mil. bu.) 3/	4,881.7	7,071.6	5,203.9	3,419.0	1,930.0	4,259.1	--	--	--	
Corn use (mil. bu.) 3/	7,698.7	1,868.5	1,787.0	1,489.9	--	--	--	--	--	
Prices 4/										
Choice steers--Omaha (\$/cwt)	69.54	73.67	73.85	70.09	70.74	72.73	72.78	72.78	71.77	
Barrows & gilts--7 mths. (\$/cwt)	43.39	40.78	41.84	46.06	38.42	42.43	37.43	41.47	40.46	
Broilers--12-city (cts./lb.)	56.3	59.4	67.1	59.7	49.53	59.60	48.54	50.56	49.55	
Eggs--NY gr. A large (cts./doz.)	62.1	78.6	75.2	81.5	76.80	78.79	67.73	65.71	63.69	
Milk--all at plant (\$/cwt)	12.20	13.07	12.27	13.17	13.90-	13.10-	13.00-	10.80-	11.50-	
					14.70	13.30	14.00	11.80	12.50	
Wheat--Kansas City HRW ordinary (\$/bu.)	3.56	4.34	4.44	4.31	--	--	--	--	--	
Corn--Chicago (\$/bu.)	2.39	2.72	2.76	2.49	--	--	--	--	--	
Soybeans--Chicago (\$/bu.)	7.33	7.63	7.39	6.71	--	--	--	--	--	
Cotton--Avg. spot mkt. (cts./lb.)	57.8	55.3	60.9	67.1	--	--	--	--	--	
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	
Gross cash income (\$ bil.)	146.0	150.6	150.4	155.2	156.9	152.5	162.0	171.6	170-175	
Gross cash expenses (\$ bil.)	113.2	112.8	113.5	116.6	110.2	100.7	104.3	111.7	116-120	
Net cash income (\$ bil.)	32.8	37.8	36.9	38.6	46.7	51.8	57.7	59.9	52-57	
Net farm income (\$ bil.)	26.9	23.5	12.7	32.2	32.4	38.0	47.1	45.7	48-53	
Farm real estate values 5/										
Nominal (\$ per acre)	819	823	788	782	679	595	547	564	597	
Real (1977 \$)	551	513	472	448	376	322	290	288	291	

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct-Sept fiscal years ending with year indicated. 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages. 5/ 1981 & 1986-89 values as of February 1. 1982-85 values as of April 1. F = forecast. -- = not available.



# U.S. and Foreign Economic Data

Table 2.—U.S. Gross National Product & Related Data

	Annual			1988			1989	
	1986	1987	1988	I	II	IV	I	II R
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	4,231.6	4,524.3	4,880.6	4,838.5	4,926.9	5,017.3	5,113.1	5,201.7
Personal consumption expenditures	2,797.4	3,010.8	3,235.1	3,204.9	3,263.4	3,324.0	3,381.4	3,444.1
Durable goods	406.0	421.0	455.2	454.6	452.5	467.4	466.4	471.0
Nondurable goods	942.0	998.1	1,052.3	1,042.4	1,066.2	1,078.4	1,098.3	1,121.5
Clothing & shoes	166.8	177.2	186.8	183.6	188.9	193.9	195.0	198.9
Food & beverages	500.0	529.2	559.7	554.5	567.8	574.1	587.3	592.2
Services	1,449.5	1,591.7	1,727.6	1,707.9	1,744.7	1,778.2	1,816.7	1,851.7
Gross private domestic investment	659.4	699.9	750.3	748.4	771.1	752.8	769.6	775.0
Fixed investment	652.5	670.6	719.6	719.1	726.5	734.1	742.0	747.6
Change in business inventories	6.9	29.3	30.6	29.3	44.6	18.7	27.7	27.4
Net exports of goods & services	-97.4	-112.6	-73.7	-74.9	-66.2	-70.8	-54.0	-50.6
Government purchases of goods & services	872.2	926.1	968.9	960.1	958.6	1,011.4	1,016.0	1,033.2
1982 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	3,717.9	3,853.7	4,024.4	4,010.7	4,042.7	4,069.4	4,106.8	4,132.5
Personal consumption expenditures	2,446.4	2,513.7	2,598.4	2,586.8	2,608.1	2,627.7	2,641.0	2,653.7
Durable goods	384.4	389.6	413.6	414.8	410.7	420.5	419.3	424.9
Nondurable goods	878.1	890.4	904.5	899.2	910.3	912.0	915.0	909.7
Clothing & shoes	157.4	159.6	161.3	157.1	164.1	164.6	165.0	165.8
Food & beverages	447.1	452.7	460.0	459.8	461.9	462.1	466.0	461.4
Services	1,183.8	1,233.7	1,280.2	1,272.8	1,287.0	1,295.2	1,306.7	1,319.0
Gross private domestic investment	639.6	674.0	715.8	713.5	733.6	709.1	721.1	719.8
Fixed investment	634.1	650.3	687.9	692.0	696.1	690.8	696.6	700.7
Change in business inventories	5.6	23.7	27.9	21.5	37.5	18.3	24.5	19.1
Net exports of goods & services	-129.7	-115.7	-74.9	-72.6	-74.9	-73.8	-55.0	-51.2
Government purchases of goods & services	761.6	781.8	785.1	783.0	775.9	806.4	799.7	810.3
GNP implicit price deflator (% change)	2.6	3.2	3.3	4.8	4.4	4.7	4.0	4.6
Disposable personal income (\$ bil.)	3,013.3	3,205.9	3,477.8	3,435.9	3,511.7	3,587.4	3,689.5	3,747.7
Disposable per. income (1982 \$ bil.)	2,635.3	2,676.6	2,793.2	2,773.3	2,806.4	2,835.9	2,881.7	2,887.6
Per capita disposable per. income (\$)	12,469	13,140	14,116	13,966	14,235	14,504	14,884	15,084
Per capita dis. per. income (1982 \$)	10,905	10,970	11,337	11,273	11,377	11,466	11,625	11,622
U.S. population, total, incl. military abroad (mil.)	241.6	243.9	246.4	246.0	246.7	247.3	247.9	248.4
Civilian population (mil.)	239.4	241.7	244.1	243.8	244.5	245.1	245.7	246.1
	Annual			1988		1989		
	1986	1987	1988	Aug	May	June	July	Aug P
Monthly data seasonally adjusted								
Industrial production (1977=100)	125.1	129.8	137.2	138.5	141.6	141.9	142.0	142.4
Leading economic indicators (1982=100)	132.1	139.6	142.5	144.1	143.7	143.7	143.9	144.4
Civilian employment (mil. persons)	109.6	112.4	115.0	115.2	117.2	117.5	117.5	117.6
Civilian unemployment rate (%)	7.0	6.2	5.5	5.6	5.2	5.3	5.2	5.2
Personal income (\$ bil. annual rate)	3,526.2	3,777.6	4,064.5	4,094.2	4,396.3	4,417.5	4,446.7	4,466.2
Money stock-M2 (daily avg.) (\$ bil.) 1/	2,811.2	2,909.9	3,069.5	3,029.7	3,072.1	3,088.0	3,117.5	3,136.3
Three-month Treasury bill rate (%)	5.98	5.82	6.69	7.02	8.40	8.22	7.92	7.91
AAA corporate bond yield (Moody's) (%)	9.02	9.38	9.71	10.11	9.57	9.10	8.93	8.96
Housing starts (1,000) 2/	1,805	1,621	1,488	1,459	1,308	1,406	1,424	1,353
Auto sales at retail, total (mil.)	11.4	10.3	10.6	10.5	10.3	9.8	10.2	11.4
Business inventory/sales ratio	1.55	1.51	1.50	1.50	1.50	1.51	1.54	--
Sales of all retail stores (\$ bil.)	121.2	125.5	134.4	135.7	142.5	142.5	143.3 P	144.3
Nondurable goods stores (\$ bil.)	73.9	76.9	83.6	84.1	88.4	88.4	88.8 P	88.5
Food stores (\$ bil.)	24.6	25.3	27.6	28.1	29.6	29.6	29.8 P	29.8
Eating & drinking places (\$ bil.)	12.1	12.7	13.1	13.3	13.6	13.7	13.7 P	13.6
Apparel & accessory stores (\$ bil.)	6.7	7.1	7.0	6.8	7.3	7.3	7.4 P	7.4

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary.  
 -- = not available.

Information contact: Ann Duncan (202) 786-3313.

Table 3.—Foreign Economic Growth, Inflation, &amp; Export Earnings

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 P	1990 F	1991 F
	Annual percent change											
World, less U.S.												
Real GDP	3.1	1.4	1.6	1.6	3.2	2.5	2.4	3.0	3.9	3.4	3.2	2.8
Consumer prices	17.0	15.8	14.7	18.8	22.8	22.1	11.8	16.6	34.4	70.9	58.8	12.3
Export earnings	22.2	-2.7	-7.0	-2.6	5.7	1.8	11.0	18.4	13.3	9.2	9.8	9.1
Developed less U.S.												
Real GDP	2.4	1.4	1.1	1.9	3.4	3.3	2.4	3.1	3.9	3.6	2.7	2.8
Consumer prices	10.9	9.6	8.0	6.0	5.1	4.7	2.8	2.6	2.9	4.2	3.6	3.3
Export earnings	17.0	-3.3	-4.3	-0.5	6.3	4.6	19.4	17.6	12.5	6.8	10.4	8.8
Asia, incl. China												
Real GDP	5.8	6.1	5.5	7.7	7.3	7.0	6.1	7.0	9.6	5.9	5.4	6.6
Consumer prices	12.4	9.3	5.8	6.2	6.7	7.3	5.7	7.3	11.8	7.9	7.9	7.7
Export earnings	27.3	7.6	-0.5	4.6	14.5	-0.9	9.4	29.3	23.1	14.4	12.0	11.8
Latin America												
Real GDP	5.4	0.9	-0.5	-3.2	3.5	3.7	4.1	3.0	0.5	-1.8	1.8	2.8
Consumer prices	64.0	67.9	75.1	130.0	177.9	184.9	88.9	140.5	318.0	700.8	578.8	85.0
Export earnings	30.1	5.3	-10.1	-0.8	6.6	-7.6	-14.5	9.1	17.1	8.6	4.8	8.3
Africa & Middle East												
Real GDP	1.3	0.0	1.4	0.1	1.1	0.0	-1.2	1.4	3.5	3.5	3.2	3.3
Consumer prices	24.6	17.3	12.9	16.7	19.4	11.2	11.7	13.3	23.7	20.7	17.4	16.2
Export earnings	37.9	-9.2	-19.7	-17.5	-6.2	-4.5	-20.8	16.1	7.4	9.1	8.0	7.8
Eastern Bloc												
Real GDP	---	---	---	2.7	1.9	1.3	3.2	1.4	2.9	1.4	1.1	2.2
Export earnings	---	---	---	8.2	1.5	-5.1	7.3	6.7	3.5	5.9	7.6	9.2

P = preliminary. F = forecast. -- = not available.

Information contact: Alberto Jerardo, (202) 786-1705.

## Farm Prices

Table 4.—Indexes of Prices Received &amp; Paid by Farmers, U.S. Average

	Annual			1988	1989						
	1986	1987	1988	Sept	Apr	May	June	July	Aug R	Sept P	
	1977=100										
Prices received											
All farm products	123	126	138	144	147	149	147	146	144	143	
All crops	107	106	126	139	140	141	138	134	126	127	
Food grains	109	103	137	151	161	160	154	153	152	153	
Feed grains & hay	98	85	120	137	139	138	131	126	120	120	
Feed grains	96	81	117	135	131	130	125	122	115	115	
Cotton	91	99	95	86	97	97	97	100	101	102	
Tobacco	138	129	132	142	144	144	144	143	142	149	
Oil-bearing crops	77	79	108	119	110	109	107	104	95	92	
Fruit, all	169	181	181	187	166	201	197	159	163	199	
Fresh market 1/	177	194	194	201	176	216	212	163	167	210	
Commercial vegetables	130	144	142	146	171	153	152	168	137	123	
Fresh market	123	147	137	141	168	145	149	170	131	115	
Potatoes & dry beans	114	126	124	127	208	223	211	233	189	159	
Livestock & products	138	146	150	153	154	156	157	157	161	158	
Meat animals	145	163	168	167	170	171	172	174	177	170	
Dairy products	129	129	126	128	127	126	127	130	163	141	
Poultry & eggs	128	107	118	139	139	147	144	138	139	139	
Prices paid											
Commodities & services											
Interest, taxes, & wage rates	159	161	170	--	177	--	--	178	--	--	
Production items	144	147	157	--	165	--	--	165	--	--	
Feed	108	103	128	--	140	--	--	133	--	--	
Feeder livestock	153	179	192	--	185	--	--	193	--	--	
Seed	148	148	150	--	170	--	--	170	--	--	
Fertilizer	124	118	130	--	141	--	--	141	--	--	
Agricultural chemicals	127	124	126	--	133	--	--	133	--	--	
Fuels & energy	162	161	163	--	185	--	--	188	--	--	
Farm & motor supplies	144	145	148	--	155	--	--	155	--	--	
Autos & trucks	198	208	215	--	226	--	--	225	--	--	
Tractors & self-propelled machinery	174	174	181	--	192	--	--	192	--	--	
Other machinery	182	185	197	--	209	--	--	209	--	--	
Building & fencing	136	137	138	--	140	--	--	141	--	--	
Farm services & cash rent	145	146	147	--	151	--	--	151	--	--	
Interest payable per acre on farm real estate debt	211	190	186	--	190	--	--	190	--	--	
Taxes payable per acre on farm real estate	138	139	142	--	144	--	--	144	--	--	
Wage rates (seasonally adjusted)	160	167	172	--	186	--	--	186	--	--	
Production items, interest, taxes, & wage rates	150	151	160	--	167	--	--	167	--	--	
Ratio, prices received to prices paid (X) 2/	77	79	82	84	83	84	83	82	81	80	
Prices received (1910=100)	561	578	631	660	672	680	673	667	657	652	
Prices paid, etc. (parity index) (1910=100)	1,093	1,110	1,167	--	1,220	--	--	1,226	--	--	
Parity ratio (1910=100) (X)2/	51	52	54	--	55	--	--	54	--	--	

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly and will be published in January, April, July, and October. P = preliminary. R = revised.

-- = not available.

Information contact: Ann Duncan (202) 786-3313.



**Table 5.—Prices Received by Farmers, U.S. Average**

	Annual 1/			1988						
	1986	1987	1988	Sept	Apr	May	June	July	Aug R	Sept P
<b>Crops</b>										
All wheat (\$/bu.)	2.71	2.55	3.33	3.74	4.03	4.01	3.84	3.78	3.74	3.78
Rice, rough (\$/cwt)	5.04	4.59	7.79	6.91	6.66	6.76	6.94	7.33	7.33	7.31
Corn (\$/bu.)	1.96	1.56	2.27	2.60	2.56	2.58	2.52	2.47	2.26	2.29
Sorghum (\$/cwt)	3.11	2.56	3.66	4.26	4.16	4.02	3.90	3.99	3.81	3.84
All hay, baled (\$/ton)	61.64	62.42	78.17	85.10	104.00	104.00	94.80	85.40	82.80	85.00
Soybeans (\$/bu.)	5.00	5.08	7.21	7.93	7.29	7.21	7.06	6.83	6.07	5.89
Cotton, upland (cts./lb.)	54.8	59.6	57.2	51.9	58.9	58.8	58.8	60.6	61.1	61.4
Potatoes (\$/cwt)	5.03	4.35	5.49	4.53	8.15	8.94	8.45	9.47	7.57	6.21
Lettuce (\$/cwt)	11.90	14.70	15.20	11.10	9.07	7.48	13.50	16.30	10.50	13.30
Tomatoes (\$/cwt)	25.10	26.00	26.80	32.10	55.80	43.60	27.90	28.40	23.90	16.60
Onions (\$/cwt)	10.90	12.50	9.99	12.40	10.90	9.58	13.60	16.70	15.80	10.40
Dry edible beans (\$/cwt)	19.10	17.67	22.38	27.00	32.80	32.00	31.10	31.90	27.60	25.30
Apples for fresh use (cts./lb.)	19.8	17.6	16.7	23.7	14.6	14.1	10.8	9.8	16.1	19.1
Pears for fresh use (\$/ton)	369.00	227.00	347.00	380.00	290.00	448.00	493.00	480.00	398.00	382.00
Oranges, all uses (\$/box) 2/	4.27	5.03	6.56	5.56	6.64	8.52	8.10	5.04	3.91	5.62
Grapefruit, all uses (\$/box) 2/	4.29	4.96	5.39	5.26	3.28	4.05	4.85	4.62	5.63	6.10
<b>Livestock</b>										
Beef cattle (\$/cwt)	52.80	61.40	66.80	67.20	70.00	68.80	67.60	68.00	69.70	67.50
Calves (\$/cwt)	60.90	78.10	89.80	89.50	90.50	91.20	94.20	94.70	94.20	91.40
Hogs (\$/cwt)	50.10	50.80	42.50	40.70	36.90	41.60	45.10	45.90	45.70	42.60
Lambs (\$/cwt)	69.10	77.90	69.50	64.20	75.20	73.10	70.60	68.60	66.60	66.70
All milk, sold to plants (\$/cwt)	12.50	12.53	12.22	12.40	12.30	12.20	12.30	12.60	13.20	13.70
Milk, manuf. grade (\$/cwt)	11.46	11.37	11.15	11.60	11.20	11.20	11.30	11.60	12.20	12.70
Broilers (cts./lb.)	34.5	28.8	34.0	39.1	38.9	45.2	42.6	39.1	36.1	37.1
Eggs (cts./doz.) 3/	61.2	53.1	53.2	63.5	65.3	62.0	63.3	64.0	71.0	71.0
Turkeys (cts./lb.)	44.4	34.3	36.5	45.4	42.3	43.4	44.0	41.5	41.3	37.3
Wool (cts./lb.) 4/	64.3	87.1	138.0	113.0	135.0	139.0	139.0	120.0	105.00	97.7

1/ Calendar year averages, except for potatoes, dry edible beans, apples, oranges, & grapefruit, which are crop years.  
 2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail.  
 4/ Average local market price, excluding incentive payments. P = preliminary. R = revised.

Information contact: Ann Duncan (202) 786-3313.

## Producer & Consumer Prices

**Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)**

	Annual	1988								
	1988	Aug	Jan	Feb	Mar	Apr	May	June	July	Aug
		1982-84=100								
Consumer Price Index, all items	118.3	119.0	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6
Consumer Price Index, less food	118.3	118.9	120.8	121.3	122.0	122.9	123.5	123.9	124.2	124.3
<b>All food</b>	118.2	119.4	122.2	122.9	123.5	124.2	124.9	125.0	125.5	125.8
Food away from home	121.8	112.5	124.7	125.2	125.7	126.2	126.7	127.1	127.8	128.1
Food at home	116.6	118.1	121.2	122.0	122.7	123.5	124.4	124.3	124.8	124.9
Meats 1/	112.2	113.2	114.0	114.3	115.5	115.6	115.6	116.1	116.7	117.5
Beef & veal	112.1	112.7	116.0	116.6	119.0	119.0	119.6	119.3	119.5	119.7
Pork	112.5	114.1	111.5	110.9	111.0	111.2	110.1	111.8	113.6	114.8
Poultry	120.7	131.7	128.8	128.4	130.3	133.0	137.3	140.1	138.1	136.2
Fish	137.4	137.9	144.0	142.9	144.3	143.3	142.3	142.9	142.3	145.2
Eggs	93.6	104.2	112.0	106.1	122.9	117.6	112.6	110.6	112.8	115.2
Dairy products 2/	108.4	108.2	112.6	113.4	113.8	114.1	113.8	113.6	114.1	114.5
Fats & oils 3/	113.1	114.9	119.6	120.5	120.4	121.6	121.6	121.6	121.6	121.7
Fresh fruit	143.0	150.1	145.4	150.0	149.5	152.4	158.1	151.7	150.6	151.4
Processed fruit	122.0	123.4	125.6	125.5	124.7	124.6	125.1	125.6	126.0	126.9
Fresh vegetables	129.3	125.9	141.4	144.4	140.2	144.1	153.2	150.8	150.8	145.1
Potatoes	119.1	132.0	130.8	138.3	146.6	158.9	164.0	172.5	180.7	182.3
Processed vegetables	112.2	113.9	120.9	121.8	122.7	124.4	124.9	125.5	126.3	125.9
Cereals & bakery products	122.1	124.0	127.9	128.9	129.7	130.4	131.5	132.1	133.3	134.1
Sugar & sweets	114.0	114.8	117.2	117.8	118.0	117.9	118.1	119.2	120.1	120.6
Beverages, nonalcoholic	107.5	107.0	109.6	111.3	111.3	111.8	111.5	111.6	112.3	111.2
<b>Apparel commodities less footwear</b>	114.4	111.3	113.5	113.4	118.1	120.0	119.3	116.1	112.8	112.8
Footwear	109.9	107.4	112.2	112.7	114.1	115.3	114.9	114.0	113.4	112.6
Tobacco & smoking products	145.8	148.6	157.0	158.5	159.2	159.5	161.1	164.2	167.5	168.8
Beverages, alcoholic	118.6	119.3	120.3	121.1	121.8	122.3	123.1	123.5	124.0	124.5

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 786-3313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1988	1989					
	1986	1987	1988	Aug	Mar	Apr R	May	June	July	Aug
	1982=100									
Finished goods 1/	103.2	105.4	108.0	108.7	112.1	113.0	114.2	114.1	114.0	113.3
Consumer foods	107.2	109.5	112.6	113.6	118.3	117.7	119.1	118.4	119.0	118.7
Fresh fruit	112.9	112.0	112.7	110.3	113.5	111.5	109.4	112.2	114.1	107.3
Fresh & dried vegetables	97.8	103.7	105.4	103.3	123.8	119.3	142.9	128.9	124.6	110.7
Dried fruit	91.9	95.0	99.1	99.3	101.9	102.3	102.3	102.8	102.8	103.3
Canned fruit & juice	111.0	115.3	120.1	120.4	121.8	121.7	122.0	122.7	123.4	123.3
Frozen fruit & juice	103.0	113.3	129.9	130.8	121.1	120.8	122.3	128.4	129.0	129.1
Fresh veg. excl. potatoes	99.3	99.0	100.4	94.3	111.0	107.1	140.4	117.0	110.5	96.3
Canned veg. & juices	101.2	103.5	108.3	112.0	119.8	118.8	119.7	119.0	118.9	118.5
Frozen vegetables	106.6	107.3	108.5	109.4	114.8	115.0	115.3	115.7	115.5	116.7
Potatoes	104.0	120.1	114.1	108.8	162.0	152.7	150.8	161.8	157.8	114.3
Eggs	99.5	87.6	88.6	107.0	135.8	110.8	107.0	104.8	111.0	116.7
Bakery products	116.6	118.4	126.4	126.9	133.1	133.6	134.4	134.9	135.3	137.3
Meats	93.9	100.4	99.9	99.8	104.0	103.1	103.5	103.4	105.8	106.1
Beef & veal	88.1	95.5	101.4	98.2	111.3	112.1	111.7	106.6	108.1	109.2
Pork	99.9	104.9	95.2	99.9	92.4	88.5	90.0	96.9	101.9	100.4
Processed poultry	116.7	103.4	111.4	123.8	123.2	124.9	132.2	130.6	125.9	120.0
Fish	124.9	140.0	151.7	143.9	153.2	150.9	157.5	139.1	137.3	139.9
Dairy products	99.9	101.6	102.2	102.2	106.0	105.6	105.7	106.4	107.8	110.8
Processed fruits & vegetables	104.9	108.6	113.8	115.2	119.2	119.0	119.9	120.7	120.8	121.0
Shortening & cooking oil	103.3	103.9	118.9	124.8	117.9	117.5	119.3	116.7	117.1	113.9
Consumer finished goods less foods	98.4	100.7	103.1	103.9	106.8	108.8	110.4	110.3	109.7	108.4
Beverages, alcoholic	110.1	110.3	111.9	112.5	115.1	115.6	116.5	116.8	116.9	117.2
Soft drinks	109.5	111.8	114.1	114.1	117.3	118.1	118.0	117.4	117.5	116.2
Apparel	106.3	108.3	111.7	112.2	113.7	113.8	114.2	114.1	114.2	114.7
Footwear	106.8	109.3	115.2	116.0	119.8	120.0	119.8	120.1	120.6	121.9
Tobacco products	142.4	154.6	171.9	175.4	187.3	187.3	187.4	196.8	196.8	198.7
Intermediate materials 2/	99.1	101.5	107.1	108.4	111.5	112.4	112.7	112.6	112.6	112.1
Materials for food manufacturing	98.4	100.8	106.0	108.9	111.4	111.1	112.4	112.1	112.9	113.2
Flour	94.5	92.9	105.7	111.8	116.5	113.6	115.9	116.5	115.0	114.3
Refined sugar 3/	103.2	106.4	108.6	110.0	116.0	115.8	117.0	116.9	118.1	118.5
Crude vegetable oils	84.8	84.2	116.8	134.5	109.8	107.8	114.7	103.1	100.3	96.2
Crude materials 4/	87.7	93.7	96.0	96.9	103.2	104.4	106.3	103.9	103.7	101.0
Foodstuffs & feedstuffs	93.2	96.2	106.0	110.4	113.7	111.6	115.0	111.4	109.7	109.5
Fruits & vegetables 5/	103.9	106.8	108.1	105.9	118.7	115.3	127.5	121.0	119.4	108.7
Grains	79.2	71.1	97.9	109.9	115.1	109.8	114.1	105.8	105.1	100.3
Livestock	91.8	102.0	103.0	100.6	106.8	106.4	106.9	105.5	104.3	108.3
Poultry, live	129.6	101.2	121.5	145.1	138.5	138.4	155.0	148.5	135.5	125.4
Fibers, plant & animal	88.3	106.4	98.4	98.7	98.4	105.0	108.1	110.5	111.4	116.7
Fluid milk	90.9	91.8	89.1	88.1	91.3	90.2	89.7	90.3	92.1	95.9
Oilseeds	91.4	99.2	134.0	150.7	140.0	130.7	137.5	127.5	129.7	115.3
Tobacco, leaf	89.7	85.7	87.2	84.0	93.1	93.7	93.7	93.7	93.7	91.8
Sugar, raw cane	104.9	110.2	111.9	111.8	112.3	112.3	113.8	115.4	118.5	118.3
All commodities	100.1	102.8	106.9	108.0	111.5	112.3	113.1	112.8	112.7	112.0
Industrial commodities	99.9	102.5	106.3	107.0	110.5	111.8	112.4	112.3	112.2	111.4
All foods 6/	105.5	107.8	111.5	112.9	117.4	116.8	118.4	117.4	118.1	117.8
Farm products & processed foods & feeds	101.2	103.7	110.0	112.7	116.1	115.0	116.9	115.2	115.4	114.9
Farm products	92.9	95.5	104.8	109.3	113.8	111.0	114.9	111.4	110.0	108.7
Processed foods & feeds 6/	105.4	107.9	112.8	114.5	117.5	117.2	118.1	117.3	118.2	118.0
Cereal & bakery products	111.0	112.6	122.9	124.6	129.2	129.1	130.8	130.8	132.1	133.1
Sugar & confectionery	109.6	112.6	114.6	115.9	118.6	119.2	119.6	120.6	121.5	121.3
Beverages	114.5	112.5	114.3	114.6	118.7	119.2	119.5	119.6	119.3	118.5

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). R = revised.

Information contact: Ann Duncan (202) 786-3313.



## Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual				1988	1989					
	1985	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug
<b>Market basket 1/</b>											
Retail cost (1982-84=100)	104.1	106.3	111.6	116.5	118.3	122.9	123.6	124.7	124.7	125.2	125.3
Farm value (1982-84=100)	96.2	94.9	97.1	100.3	104.6	107.2	106.7	108.7	106.7	108.1	106.6
Farm-retail spread (1982-84=100)	108.3	112.5	119.4	125.3	125.8	131.4	132.7	133.3	134.5	134.4	135.4
Farm value-retail cost (%)	32.4	31.2	30.5	30.1	30.9	30.5	30.2	30.5	29.9	30.2	29.8
<b>Meat products</b>											
Retail cost (1982-84=100)	98.9	102.0	109.6	112.2	113.2	115.5	115.6	115.6	116.1	116.7	117.5
Farm value (1982-84=100)	91.3	94.3	101.2	99.5	97.5	103.7	103.4	103.2	103.6	103.4	104.4
Farm-retail spread (1982-84=100)	106.7	109.8	118.3	125.2	129.3	127.6	128.1	128.3	128.9	130.3	131.0
Farm value-retail cost (%)	46.8	46.8	46.7	44.9	43.6	45.5	45.3	45.2	45.2	44.9	45.0
<b>Dairy products</b>											
Retail cost (1982-84=100)	103.2	103.3	105.9	108.4	108.2	113.8	114.1	113.8	113.6	114.1	114.5
Farm value (1982-84=100)	95.2	92.6	93.3	90.4	88.8	94.3	93.0	91.7	92.5	94.1	95.3
Farm-retail spread (1982-84=100)	110.5	113.3	117.5	124.9	126.1	131.7	133.5	134.2	133.0	132.6	132.2
Farm value-retail cost (%)	44.2	43.0	42.3	40.0	39.4	39.8	39.1	38.6	39.1	39.6	39.9
<b>Poultry</b>											
Retail cost (1982-84=100)	106.2	114.2	112.6	120.7	131.7	130.3	133.0	137.3	140.1	138.1	136.2
Farm value (1982-84=100)	105.9	115.1	93.8	110.4	133.7	124.3	125.9	143.5	136.8	126.1	117.8
Farm-retail spread (1982-84=100)	106.6	113.3	134.2	132.6	129.4	137.3	141.2	130.1	143.9	152.0	157.4
Farm value-retail cost (%)	53.3	53.9	44.6	49.0	54.3	51.0	50.7	55.9	52.2	48.9	46.3
<b>Eggs</b>											
Retail cost (1982-84=100)	91.0	97.2	91.5	93.6	104.2	122.9	117.6	112.6	110.6	112.8	115.2
Farm value (1982-84=100)	85.7	92.4	76.8	76.7	86.6	128.0	99.8	93.3	95.5	97.3	110.3
Farm-retail spread (1982-84=100)	100.4	106.0	117.9	123.9	135.8	113.7	149.5	147.2	137.7	140.7	123.9
Farm value-retail cost (%)	60.5	61.0	53.9	52.7	53.4	66.9	54.5	53.2	55.5	55.4	61.5
<b>Cereal &amp; bakery products</b>											
Retail cost (1982-84=100)	107.9	110.9	114.8	122.1	124.0	129.7	130.4	131.5	132.1	133.3	134.1
Farm value (1982-84=100)	94.3	76.3	71.0	92.3	99.5	103.1	103.4	104.2	103.6	102.7	100.4
Farm-retail spread (1982-84=100)	109.8	115.7	120.9	126.3	127.4	133.4	134.2	135.3	136.1	137.6	138.8
Farm value-retail cost (%)	10.7	8.4	7.6	9.3	9.8	9.7	9.7	9.7	9.6	9.4	9.2
<b>Fresh fruits</b>											
Retail cost (1982-84=100)	118.4	120.4	135.6	145.4	153.5	151.6	151.0	157.3	152.6	152.3	151.9
Farm value (1982-84=100)	110.8	103.8	113.9	113.3	125.0	92.3	82.8	95.8	86.9	98.8	106.1
Farm-retail spread (1982-84=100)	121.8	128.0	145.7	160.2	166.7	179.0	182.5	185.7	182.9	177.0	173.0
Farm value-retail cost (%)	29.6	27.4	26.5	24.6	25.7	19.2	17.3	19.2	18.0	20.5	22.1
<b>Fresh vegetables</b>											
Retail cost (1982-84=100)	103.5	107.7	121.6	129.3	125.9	140.2	144.1	153.2	150.8	150.8	145.1
Farm value (1982-84=100)	93.1	90.0	112.0	105.8	121.4	120.1	142.7	153.4	133.0	158.0	131.5
Farm-retail spread (1982-84=100)	108.9	116.8	126.5	141.3	128.2	150.5	144.8	153.1	160.0	147.1	152.1
Farm value-retail cost (%)	30.5	28.4	31.3	27.8	32.7	29.1	33.6	34.0	29.9	35.6	30.8
<b>Processed fruits &amp; vegetables</b>											
Retail cost (1982-84=100)	107.0	105.3	109.0	117.6	119.2	123.7	124.3	124.9	125.4	126.0	126.3
Farm value (1982-84=100)	117.7	101.5	111.1	136.5	140.1	134.3	132.7	132.7	132.9	136.7	133.0
Farm-retail spread (1982-84=100)	103.7	106.4	108.3	111.7	112.7	120.4	121.7	122.5	123.1	122.6	124.2
Farm value-retail cost (%)	26.2	22.9	24.2	27.6	27.9	25.8	25.4	25.3	25.2	25.8	25.0
<b>Fats &amp; oils</b>											
Retail cost (1982-84=100)	108.9	106.5	108.1	113.1	114.9	120.4	121.6	121.6	121.6	121.6	121.7
Farm value (1982-84=100)	104.3	76.2	74.1	103.3	114.9	102.7	106.8	107.1	99.2	92.0	80.2
Farm-retail spread (1982-84=100)	110.6	117.6	120.6	116.7	114.9	126.9	127.1	126.9	129.8	132.5	137.0
Farm value-retail cost (%)	25.8	19.2	18.6	24.6	26.9	22.9	23.6	23.7	21.9	20.3	17.7

	Annual				1988	1989					
	1985	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug
<b>Beef, Choice</b>											
Retail price 2/ (cts./lb.)	232.6	230.7	242.5	254.7	257.8	269.5	269.8	271.9	268.1	271.6	269.5
Net carcass value 3/ (cts.)	135.2	133.1	145.3	153.9	150.5	167.4	169.5	167.7	158.5	156.4	155.6
Net farm value 4/ (cts.)	126.8	124.4	137.9	147.4	142.9	163.9	164.3	160.9	152.5	149.9	152.2
Farm-retail spread (cts.)	105.8	106.3	104.6	107.3	114.9	105.6	105.5	111.0	115.6	121.7	117.3
Carcass-retail spread 5/ (cts.)	97.4	97.6	97.2	100.8	107.3	102.1	100.3	104.2	109.6	115.2	113.9
Farm-carcass spread 6/ (cts.)	8.4	8.7	7.4	6.5	7.6	3.5	5.2	6.8	6.0	6.5	3.4
Farm value-retail price (%)	55	54	57	58	55	61	61	59	57	55	56
<b>Pork</b>											
Retail price 2/ (cts./lb.)	162.0	178.4	188.4	183.4	185.5	179.7	179.5	177.1	179.1	182.8	184.6
Wholesale value 3/ (cts.)	101.1	110.9	113.0	101.0	101.4	91.8	88.6	95.5	99.6	100.6	101.3
Net farm value 4/ (cts.)	71.4	82.4	82.7	69.4	73.4	63.3	59.0	68.4	74.0	75.2	74.6
Farm-retail spread (cts.)	90.6	96.0	105.7	114.0	112.1	116.4	120.5	108.7	105.1	107.6	110.0
Wholesale-retail spread 5/ (cts.)	60.9	67.5	75.4	82.4	84.1	87.9	90.9	81.6	79.5	82.2	83.5
Farm-wholesale spread 6/ (cts.)	29.7	28.5	30.3	31.6	28.0	28.5	29.6	27.1	25.6	25.4	26.7
Farm value-retail price (%)	44	46	44	38	40	35	33	39	41	41	40

1/ Retail costs are based on indexes of retail prices for domestically produced farm foods from the CPI-U published monthly by the Bureau of Labor Statistics. The farm value is the payment to farmers for quantity of farm product equivalent to retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing these foods. 2/ Estimated weighted average price of retail cuts from pork & choice yield grade 3 beef carcasses. Retail cut prices from BLS. 3/ Value of carcass quantity (beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts; beef adjusted for value of fat & bone byproducts. 4/ Market value to producer for quantity of live animal equivalent to 1 lb. of retail cuts minus value of byproducts. 5/ Represents charges for retailing & other marketing services such as fabricating, wholesaling, in-city transportation. 6/ Represents charges made for livestock marketing, processing, & transportation to city where consumed.

Information contacts: Denis Dunham (202) 786-1870, Ron Gustafson (202) 786-1286.

Table 9.—Price Indexes of Food Marketing Costs

(See the September 1989 Issue.)

Information contact: Denis Dunham (202) 786-1870.

# Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Pro-duction 1/	Im-ports	Total supply	Ex-ports	Ship-ments	Ending stocks	Consumption		Primary market price 3/
								Total	Per capita 2/	
									Million pounds 4/	
Beef										
1987	412	23,566	2,269	26,247	604	52	386	25,205	73.4	64.60
1988	386	23,589	2,379	26,354	680	64	422	25,188	72.1	69.54
1989 F	422	22,921	2,180	25,523	963	60	325	24,175	68.5	72-73
1990 F	325	23,040	2,160	25,525	1,080	60	325	24,060	67.6	--
Pork										
1987	248	14,374	1,195	15,817	109	124	347	15,237	59.1	51.69
1988	347	15,684	1,137	17,168	195	126	413	16,434	63.1	43.39
1989 F	413	16,041	985	17,439	210	140	370	16,719	63.7	42-43
1990 F	370	15,836	1,025	17,231	175	140	375	16,541	62.5	--
Veal 5/										
1987	7	429	24	460	7	1	4	449	1.5	78.05
1988	4	396	27	427	10	2	5	410	1.4	89.79
1989 F	5	352	0	357	0	1	5	351	1.2	93-94
1990 F	5	354	0	359	0	1	4	354	1.2	--
Lamb & mutton										
1987	13	315	44	372	2	2	8	360	1.3	78.09
1988	8	335	51	394	1	1	6	386	1.4	68.84
1989 F	6	338	55	399	1	0	7	391	1.4	67-68
1990 F	7	336	55	398	1	1	7	389	1.4	--
Total red meat										
1987	679	38,684	3,533	42,897	722	179	744	41,251	135.3	--
1988	745	40,004	3,594	44,343	886	193	846	42,418	137.9	--
1989 F	846	39,652	3,220	43,718	1,174	201	707	41,636	134.9	--
1990 F	707	39,566	3,240	43,513	1,256	202	711	41,344	132.7	--
Broilers										
1987	24	15,594	0	15,618	752	151	25	14,691	60.2	47.4
1988	25	16,180	0	16,205	765	156	36	15,248	61.9	56.3
1989 F	36	17,266	0	17,301	912	140	30	16,219	65.2	59-60
1990 F	30	18,549	0	18,579	910	140	30	17,499	69.8	--
Mature chicken										
1987	163	639	0	802	15	2	188	597	2.4	--
1988	188	638	0	826	26	3	157	641	2.6	--
1989 F	157	628	0	785	21	4	150	610	2.5	--
1990 F	150	638	0	788	20	4	150	614	2.4	--
Turkeys										
1987	178	3,828	0	4,006	33	4	266	3,707	15.2	57.8
1988	266	3,968	0	4,234	51	5	250	3,928	15.9	61.3
1989 F	250	4,216	0	4,466	40	4	290	4,132	16.6	64-65
1990 F	290	4,400	0	4,690	45	4	280	4,361	17.4	--
Total poultry										
1987	365	20,072	0	20,437	800	157	479	18,994	77.8	--
1988	479	20,786	0	21,265	842	163	442	19,818	80.4	--
1989 F	442	22,110	0	22,552	973	148	470	20,961	84.3	--
1990 F	470	23,587	0	24,057	975	148	460	22,474	89.6	--
Red meat & poultry										
1987	1,044	58,756	3,532	63,326	1,521	343	1,224	60,238	213.1	--
1988	1,240	60,790	3,594	65,608	1,728	356	1,288	62,225	218.3	--
1989 F	1,288	61,762	3,226	66,270	2,147	349	1,177	62,597	219.1	--
1990 F	1,177	63,153	3,240	67,570	2,231	350	1,171	63,818	222.3	--

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry.  
 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .71 for 1987, & 70.5 for 1988-90.) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Choice steers, Omaha 1,000-1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. -- = not available.

Information contacts: Polly Cochran, or Maxine Davis (202) 786-1284.



Table 11.—U.S. Egg Supply &amp; Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Ship- ments	Hatch- ing use	Ending stocks	Consumption		Wholesale price*
									Total	Per capita	
									No.		
Million dozen											
1985	11.1	5,688.0	12.7	5,711.8	70.6	30.3	548.1	10.7	5,052.0	253.3	66.4
1986	10.7	5,705.0	13.7	5,729.4	101.6	28.0	566.8	10.4	5,022.6	249.4	71.1
1987	10.4	5,802.3	5.6	5,818.3	111.2	25.1	599.1	14.4	5,068.5	249.3	61.6
1988	14.4	5,771.1	5.3	5,790.8	141.8	26.0	604.9	15.2	5,002.9	243.7	62.1
1989 F	15.2	5,635.0	20.1	5,670.3	106.9	24.0	635.1	10.0	4,894.2	236.2	76.80
1990 F	10.0	5,770.0	8.0	5,788.0	104.0	25.0	690.0	10.0	4,959.0	237.3	64-68

\* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Maxine Davis (202) 786-1714.

Table 12.—U.S. Milk Supply & Use<sup>1</sup>

	Pro- duc- tion	Farm use	Commercial		Im- ports	Total commer- cial supply	CCC net re- movals	Commercial		All milk price 2/ \$/cwt
			Farm market- ings	Beg. stocks				Ending stocks	Disap- pear- ance	
			Billion pounds							
1981	132.8	2.3	130.5	5.8	2.3	138.5	12.9	5.4	120.3	13.77
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61
1983	139.7	2.4	137.3	4.6	2.6	144.5	16.8	5.2	122.5	13.58
1984	135.4	2.9	132.5	5.2	2.7	140.5	8.6	4.9	126.9	13.46
1985	143.1	2.5	140.7	4.9	2.8	148.4	13.2	4.6	130.6	12.75
1986	143.4	2.4	141.0	4.6	2.7	148.3	10.6	4.2	133.5	12.51
1987	142.5	2.2	140.3	4.2	2.5	146.9	6.7	4.6	135.6	12.54
1988	145.5	2.2	143.3	4.6	2.4	150.3	8.9	4.3	137.1	12.24
1989 F	145.7	2.2	143.5	4.3	2.3	150.1	8.7	4.2	137.2	13.20

<sup>1</sup>/ Milkfat basis. Totals may not add because of rounding. <sup>2</sup>/ Delivered to plants & dealers; does not reflect deductions. F = forecast.

Information contact: Jim Miller (202) 786-1770.

Table 13.—Poultry &amp; Eggs

	Annual			1988		1989					
	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug	
<b>Broilers</b>											
Federally inspected slaughter, certified (mil. lb.)	14,265.6	15,502.5	15,984.0	1,421.9	1,473.4	1,335.9	1,538.5	1,514.5	1,360.1	1,591.6	
Wholesale price, 12-city (cts./lb.)	56.9	47.4	56.3	68.9	62.1	63.5	70.4	67.4	62.0	57.3	
Price of grower feed (\$/ton)	187	186	220	249	242	243	238	237	237	233	
Broiler-feed price ratio 1/	3.7	3.7	3.1	3.4	3.2	3.2	3.8	3.6	3.3	3.1	
Stocks beginning of period (mil. lb.)	26.6	23.9	24.8	43.8	32.5	32.4	37.9	35.3	34.3	34.9	
Broiler-type chicks hatched (mil.) 2/	5,013.3	5,379.2	5,588.7	479.7	502.5	493.5	522.9	509.8	511.7	509.3	
<b>Turkeys</b>											
Federally inspected slaughter, certified (mil. lb.)	3,133	3,717	3,903	377.3	301.3	268.8	356.9	388.6	359.6	429.1	
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	72.2	57.8	61.3	70.5	65.7	68.3	72.1	73.0	66.4	62.6	
Price of turkey grower feed (\$/ton)	215	213	243	271	258	256	255	251	252	250	
Turkey-feed price ratio 1/	4.1	3.9	3.0	3.1	3.1	3.3	3.4	3.5	3.3	3.3	
Stocks beginning of period (mil. lb.)	150.2	178.2	282.4	496.1	263.1	269.2	298.5	355.6	454.6	493.7	
Poults placed in U.S. (mil.)	225.4	240.4	242.0	19.6	26.9	26.4	28.6	29.1	26.5	23.0	
<b>Eggs</b>											
Farm production (mil.)	68,460	69,627	69,253	5,746	5,777	5,565	5,683	5,479	5,625	5,591	
Average number of layers (mil.)	278	280	286	271	270	267	267	266	265	266	
Rate of lay (eggs per layer on farms)	248	248	251	21.2	21.4	20.7	21.3	20.6	21.2	21.0	
Cartoned price, New York, grade A large (cts./doz.) 3/	71.1	61.6	62.1	69.5	92.1	76.6	73.7	75.2	76.5	84.2	
Price of laying feed (\$/ton)	174	170	202	237	214	211	210	211	210	209	
Egg-feed price ratio 1/	7.0	7.6	5.3	4.9	7.5	6.2	5.9	6.0	6.1	6.8	
<b>Stocks, first of month</b>											
Shell (mil. doz.)	.72	1.16	1.29	.84	.21	.48	.54	.78	.81	.36	
Frozen (mil. doz.)	10.0	9.8	13.1	17.4	14.4	11.2	11.7	12.3	11.4	12.4	
Replacement chicks hatched (mil.)	424	428	366	27.8	32.7	35.9	38.3	34.7	30.2	32.4	

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 12 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 786-1714.

Table 14.—Dairy

	Annual			1988		1989				
	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	11.30	11.23	11.03	10.98	10.98	11.09	11.12	11.33	11.76	12.37
Wholesale prices										
Butter, grade A Chi. (cts./lb.)	144.5	140.2	132.5	135.6	131.0	131.0	131.0	131.0	130.3	132.8
Am. cheese, Wis. assembly pt. (cts./lb.)	127.3	123.2	123.8	127.6	117.8	120.4	123.9	130.8	140.6	143.2
Nonfat dry milk (cts./lb.) 2/	80.6	79.3	80.2	80.6	79.6	81.1	84.5	88.5	96.2	110.7
USDA net removals										
Total milk equiv. (mil. lb.) 3/	10,628.1	6,706.0	8,856.2	240.0	1,156.5	1,398.8	1,468.3	863.5	167.1	-69.5
Butter (mil. lb.)	287.6	187.3	312.6	7.8	54.4	64.1	66.4	40.3	7.7	-5.1
Am. cheese (mil. lb.)	468.4	282.0	238.1	7.5	3.0	7.0	9.3	2.9	.2	3.1
Nonfat dry milk (mil. lb.)	827.3	559.4	267.5	-4	0	0	0	0	0	0
Milk										
Milk prod. 21 States (mil. lb.)	121,433	121,294	123,896	10,282	10,860	10,770	11,095	10,435	10,293	10,135
Milk per cow (lb.)	13,399	13,955	14,378	1,196	1,275	1,266	1,305	1,228	1,211	1,194
Number of milk cows (1,000)	9,063	8,692	8,617	8,596	8,520	8,510	8,505	8,501	8,497	8,490
U.S. milk production (mil. lb.)	143,381	142,557	145,527	6/12,041	6/12,766	6/12,661	6/13,043	6/12,268	6/12,117	6/11,931
Stock, beginning										
Total (mil. lb.)	13,695	12,867	7,440	11,316	10,448	11,000	11,870	13,245	13,937	13,817
Commercial (mil. lb.)	4,590	4,165	4,646	5,370	5,018	4,940	5,140	5,763	5,888	5,899
Government (mil. lb.)	9,105	8,702	2,794	5,946	5,430	6,059	6,729	7,482	8,048	7,918
Imports, total (mil. lb.) 3/	2,733	2,490	2,394	211	178	177	162	179	194	--
Commercial disappearance (mil. lb.)	133,498	135,657	137,187	11,901	11,677	11,056	10,925	11,275	11,944	--
Butter										
Production (mil. lb.)	1,202.4	1,104.1	1,207.5	74.1	135.7	124.7	122.5	95.3	72.2	80.1
Stocks, beginning (mil. lb.)	205.5	193.0	143.2	295.8	316.4	341.9	379.1	438.3	464.2	461.0
Commercial disappearance (mil. lb.)	922.9	902.5	909.8	59.9	86.9	55.6	35.3	53.4	60.8	--
American cheese										
Production (mil. lb.)	2,798.2	2,716.7	2,756.6	208.8	231.9	236.2	247.0	240.0	226.8	214.0
Stocks, beginning (mil. lb.)	850.2	697.1	370.4	419.5	293.5	284.6	288.7	311.8	317.4	315.9
Commercial disappearance (mil. lb.)	2,382.8	2,437.1	2,570.0	227.0	228.5	228.8	220.4	237.3	227.8	--
Other cheese										
Production (mil. lb.)	2,411.1	2,627.7	2,815.0	233.1	256.5	236.4	247.9	245.6	237.8	246.4
Stocks, beginning (mil. lb.)	94.1	92.0	89.7	107.7	111.4	110.9	117.0	115.8	120.4	118.3
Commercial disappearance (mil. lb.)	2,684.9	2,880.2	3,034.1	253.4	274.2	245.6	265.9	258.7	259.8	--
Nonfat dry milk										
Production (mil. lb.)	1,284.1	1,056.8	978.5	68.1	95.7	99.8	99.8	81.0	60.8	53.9
Stocks, beginning (mil. lb.)	1,011.1	686.8	177.2	138.5	84.4	88.3	100.8	100.7	78.3	66.7
Commercial disappearance (mil. lb.)	479.1	492.9	733.1	86.7	91.0	86.5	99.4	101.9	71.6	--
Frozen dessert										
Production (mil. gal.) 4/	1,248.6	1,260.7	1,246.9	132.1	108.0	104.3	122.6	128.4	122.5	122.1

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area, high heat spray process.  
 3/ Milk equivalent, fat basis. 4/ Ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Estimated. P = preliminary. -- = not available.

Information contact: Jim Miller (202) 786-1770.

Table 15.—Wool

	Annual			1988		1989				
	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug P
U.S. wool price, 1/ (cts./lb.)	191	265	438	450	410	375	375	365	350	350
Imported wool price, 2/ (cts./lb.)	201	247	372	345	387	363	339	323	325	330
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	126,768	129,677	117,069	8,802	13,718	10,400	8,700	11,908	9,332	9,741
Carpet wool (1,000 lb.)	9,960	13,092	15,633	1,641	1,559	1,595	1,362	1,517	1,155	1,472

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up.  
 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. P = preliminary.

Information contact: John Lawler (202) 786-1840.



Table 16.—Meat Animals

	Annual			1988						
	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	7,920	7,643	8,066	6,588	7,661	8,012	7,847	7,555	7,010	6,568
Placed on feed (1,000 head)	20,035	21,040	20,584	1,660	1,975	1,534	1,619	1,268	1,311	1,618
Marketings (1,000 head)	19,263	19,410	19,698	1,760	1,549	1,570	1,747	1,751	1,690	1,679
Other disappearance (1,000 head)	1,049	1,207	1,187	66	75	129	164	62	63	76
Beef steer-corn price ratio, Omaha 2/	31.0	41.0	31.5	26.2	29.4	30.2	29.4	28.9	29.6	32.0
Hog-corn price ratio, Omaha 2/	27.8	32.8	19.6	17.8	15.4	14.8	16.8	18.5	19.6	20.9
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, Omaha	57.75	64.60	69.54	67.08	75.75	75.31	74.52	71.71	70.74	71.09
Utility cows, Omaha	37.19	44.83	46.55	47.33	45.89	45.19	45.57	48.56	49.12	49.13
Choice vealers, S. St. Paul 3/	59.92	78.74	90.23	87.50	257.50	266.25	260.05	258.44	246.88	263.00
Feeder cattle										
Choice, Kansas City, 600-700 lb.	62.79	75.36	83.67	84.65	84.45	82.63	83.50	85.38	87.13	88.40
Slaughter hogs										
Barrows & gilts, 7-markets	51.19	51.69	43.39	46.10	39.85	37.06	42.37	46.10	47.06	46.84
Feeder pigs										
S. Mo. 40-50 lb. (per head)	45.62	46.69	38.88	27.40	39.55	34.74	34.24	28.85	24.25	29.80
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	69.46	78.09	68.84	56.19	70.90	78.17	73.56	72.63	67.75	67.28
Ewes, Good, San Angelo	34.78	38.62	38.88	38.20	47.55	42.45	38.95	37.10	31.92	30.65
Feeder lambs										
Choice, San Angelo	73.14	102.26	90.91	79.05	95.30	88.06	78.18	75.94	74.08	75.50
Wholesale meat prices, Midwest										
Choice steer beef, 600-700 lb.	88.98	97.21	103.34	101.04	112.43	113.84	112.62	106.35	104.91	104.31
Canner & cutter cow beef	71.31	83.70	87.77	86.51	92.17	89.77	89.74	93.83	95.24	95.32
Pork loins, 14-18 lb. 4/	104.78	106.23	97.49	106.88	91.77	91.59	99.95	108.28	115.10	110.03
Pork bellies, 12-14 lb.	65.82	63.11	41.25	37.46	30.91	25.49	29.11	32.90	31.52	28.82
Hams, skinned, 14-17 lb.	80.01	80.96	71.03	67.16	63.00	61.60	63.30	64.00	64.23	68.00
All fresh beef retail price 5/	--	212.64	224.81	227.10	236.54	238.40	239.44	237.30	240.57	240.11
Commercial slaughter (1,000 head)*										
Cattle	37,288	35,647	35,072	3,207	2,822	2,644	3,024	3,025	2,794	3,045
Steers	17,516	17,443	17,341	1,567	1,400	1,336	1,521	1,506	1,385	1,491
Heifers	11,097	10,906	10,755	1,039	840	783	907	952	903	972
Cows	7,961	6,610	6,334	542	532	493	540	508	452	519
Bulls & stags	714	689	642	59	50	52	56	59	54	63
Calves	3,408	2,815	2,504	234	200	158	163	167	174	195
Sheep & lambs	5,635	5,199	5,293	462	519	409	447	437	413	494
Hogs	79,598	81,081	87,738	7,292	7,763	7,380	7,480	7,079	6,295	7,587
Commercial production (mil. lb.)										
Beef	24,213	23,405	23,419	2,162	1,889	1,757	1,998	2,022	1,889	2,091
Veal	509	416	387	35	31	27	29	29	27	29
Lamb & mutton	331	309	329	28	33	26	28	26	25	29
Pork	13,998	14,312	15,614	1,282	1,373	1,321	1,341	1,266	1,107	1,333
	Annual			1988			1989			
	1986	1987	1988	II	III	IV	I	II	III	IV
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,754	9,245	9,769	9,385	9,001	8,591	9,408	9,678	8,455	--
Placed on feed (1,000 head)	23,583	24,894	24,353	5,893	5,986	6,650	6,212	5,177	--	--
Marketings (1,000 head)	22,856	22,991	23,339	5,859	6,171	5,486	5,598	5,985	7/6,038	--
Other disappearance (1,000 head)	1,236	1,379	1,375	418	225	347	344	415	--	--
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	41,100	39,690	42,995	41,345	44,065	45,000	43,210	41,605	44,100	45,800
Breeding (1,000 head) 1/	5,258	5,110	5,510	5,520	5,630	5,460	5,335	5,420	5,560	5,385
Market (1,000 head) 1/	35,842	34,580	37,485	35,825	38,435	39,540	37,875	36,185	38,540	40,415
Farrowings (1,000 head)	8,223	8,838	9,316	2,578	2,359	2,261	2,109	2,575	2,380	7/2,278
Pig crop (1,000 head)	63,835	68,888	71,848	20,175	18,007	17,216	16,439	20,256	18,604	--

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Per head starting September 1988. 4/ Prior to 1984, 8-14 lb.; 1984 & 1985, 14-17 lb.; beginning 1986, 14-18 lb. 5/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 7/ Intentions. \*Classes estimated. -- = not available.

Information contacts: Polly Cochran (202) 786-1284.

# Crops & Products

Table 17.—Supply & Utilization<sup>1,2</sup>

	Area						Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price \$/—
	Set aside 3/	Planted	Harvested	Yield	Production	Total supply 4/						
	Mil. acres		Bu./acre		Mil. bu.							\$/bu.
Wheat												
1984/85	18.3	79.2	66.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86	18.8	75.6	64.7	37.5	2,425	3,866	279	767	915	1,961	1,905	3.08
1986/87	21.0	72.1	60.7	34.4	2,092	4,018	413	780	1,004	2,197	1,821	2.42
1987/88	23.9	65.8	56.0	37.7	2,107	3,945	281	811	1,592	2,684	1,261	2.57
1988/89*	22.5	65.5	53.2	34.1	1,811	3,095	143	830	1,424	2,397	698	3.72
1989/90*	9.7	76.6	62.1	32.9	2,042	2,760	200	842	1,275	2,317	443	3.85-4.10
Rice												
	Mil. acres		Lb./acre		Mil. cwt (rough equiv.)							\$/cwt
1984/85	.79	2.83	2.80	4,954	138.8	187.3	--	6/60.5	62.1	122.6	64.7	8.04
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	--	6/65.8	58.7	124.5	77.3	6.53
1986/87	1.48	2.38	2.36	5,651	133.4	213.3	--	6/77.7	84.2	161.9	51.4	3.75
1987/88	1.57	2.36	2.33	5,555	129.6	184.0	--	6/80.4	72.2	152.6	31.4	7.27
1988/89*	1.09	2.93	2.90	5,511	159.5	195.1	--	6/82.9	85.6	168.4	26.7	6.50-7.00
1989/90*	1.21	2.77	2.75	5,649	155.1	186.8	--	6/85.4	79.0	164.4	22.4	6.50-8.50
Corn												
	Mil. acres		Bu./acre		Mil. bu.							\$/bu.
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,036	1,648	2.63
1985/86	5.4	83.4	75.2	118.0	8,877	10,536	4,095	1,160	1,241	6,496	4,040	2.23
1986/87	14.3	76.7	69.2	119.3	8,250	12,291	4,714	1,192	1,504	7,410	4,882	1.50
1987/88	23.0	65.7	59.2	119.4	7,072	11,958	4,738	1,229	1,732	7,699	4,259	1.94
1988/89*	20.5	67.6	58.2	84.6	4,921	9,185	3,925	1,255	2,075	7,255	1,930	2.54
1989/90*	10.2	72.3	65.1	114.4	7,449	9,382	4,200	1,300	2,000	7,500	1,882	1.85-2.25
Sorghum												
	Mil. acres		Bu./acre		Mil. bu.							\$/bu.
1984/85	.6	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86	.9	18.3	16.8	66.8	1,120	1,420	664	28	178	869	551	1.93
1986/87	3.0	15.3	13.9	67.7	1,038	1,489	535	12	198	746	743	1.37
1987/88	4.1	11.8	10.6	69.7	739	1,483	564	25	231	820	663	1.70
1988/89*	3.9	10.4	9.1	63.8	578	1,240	465	22	315	802	438	2.27
1989/90*	2.9	11.9	10.5	62.4	657	1,095	500	15	250	765	330	1.65-2.05
Barley												
	Mil. acres		Bu./acre		Mil. bu.							\$/bu.
1984/85	.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86	.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87	2.1	13.1	12.0	50.8	611	944	298	174	137	608	336	1.61
1987/88	2.9	11.0	10.1	52.7	530	879	258	174	126	558	321	1.81
1988/89*	2.5	9.9	7.7	38.2	294	627	165	180	85	430	197	2.79
1989/90*	2.2	9.2	8.3	48.6	405	616	190	180	60	430	186	2.05-2.45
Oats												
	Mil. acres		Bu./acre		Mil. bu.							\$/bu.
1984/85	.1	12.4	8.2	58.0	474	689	433	74	1	509	180	1.67
1985/86	.1	13.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87	.6	14.7	6.9	56.3	386	603	395	73	3	471	133	1.21
1987/88	.8	18.0	6.9	54.0	376	553	361	79	1	441	112	1.56
1988/89*	.3	13.9	5.6	39.2	219	399	200	100	1	301	98	2.61
1989/90*	.3	12.1	6.8	54.3	371	524	300	110	2	412	112	1.35-1.75
Soybeans												
	Mil. acres		Bu./acre		Mil. bu.							\$/bu.
1984/85	0	67.8	66.1	28.1	1,861	2,037	7/93	1,030	598	1,721	316	5.84
1985/86	0	63.1	61.6	34.1	2,099	2,415	7/86	1,053	740	1,879	536	5.05
1986/87	0	60.4	58.3	33.3	1,940	2,476	7/104	1,179	757	2,040	436	4.78
1987/88	0	58.0	57.0	33.7	1,923	2,359	7/81	1,174	802	2,057	302	5.88
1988/89*	0	58.9	57.5	26.9	1,548	1,150	7/81	1,057	530	1,668	182	7.35
1989/90*	0	60.5	59.1	32.6	1,926	2,108	7/93	1,115	575	1,783	325	4.75-6.00
Soybean oil												
					Mil. lbs.							\$/cwt./lb.
1984/85	--	--	--	--	11,468	12,209	--	9,917	1,660	11,577	632	29.50
1985/86	--	--	--	--	11,617	12,257	--	10,053	1,257	11,310	947	18.00
1986/87	--	--	--	--	12,783	13,745	--	10,833	1,187	12,020	1,725	15.40
1987/88	--	--	--	--	12,974	9/14,895	--	10,930	1,873	12,803	2,092	22.65
1988/89*	--	--	--	--	11,743	9/13,975	--	10,600	1,450	12,050	1,925	21.10
1989/90*	--	--	--	--	12,260	9/14,200	--	11,000	1,400	12,400	1,800	18.0-22.0
Soybean meal												
					1,000 tons							10/ \$/ton
1984/85	--	--	--	--	24,529	24,784	--	19,480	4,917	24,397	387	125
1985/86	--	--	--	--	24,351	25,338	--	19,090	6,036	25,126	212	155
1986/87	--	--	--	--	27,758	27,970	--	20,387	7,343	27,730	240	163
1987/88	--	--	--	--	28,060	28,300	--	21,293	6,854	28,147	153	222
1988/89*	--	--	--	--	24,947	25,100	--	19,750	5,100	24,850	250	233
1989/90*	--	--	--	--	26,450	26,450	--	21,300	5,100	26,400	300	150-180

See footnotes at end of table.



Table 17.—Supply &amp; Utilization, continued

	Area			Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Set aside 3/	Planted	Harvested									
	Mil. acres			Lb./acre				Mil. bales				Cts./lb.
Cotton 11/												
1984/85	2.5	11.1	10.4	600	13.0	15.8	--	5.5	6.2	11.8	4.1	58.70
1985/86	3.6	10.7	10.2	630	13.4	17.6	--	6.4	2.0	8.4	9.4	56.50
1986/87	4.2	10.0	8.5	552	9.7	19.1	--	7.4	6.7	14.1	5.0	52.40
1987/88	4.0	10.4	10.0	706	14.8	19.8	--	7.6	6.6	14.2	5.8	64.30
1988/89*	2.2	12.5	11.9	619	15.4	21.2	--	7.8	6.2	14.0	7.1	55.50
1989/90*	3.5	10.5	9.5	603	12.0	19.1	--	8.0	7.8	15.8	3.3	--

\*October 12, 1989 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soybean & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3/ Includes diversion, PLK, acreage reduction, 50-92, & 0-92 Programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Includes 196 million pounds in imports for 1987/88, 140 million in 1988/89, and 15 million in 1989/90. 10/ Average of 44 percent, Decatur. 11/ Upland & extra long staple. Stock estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. -- = not available.

Information contact: Commodity Economics Division, Crops Branch (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/				1988	1989				
	1985/86	1986/87	1987/88	1988/89	Aug	Apr	May	June	July	Aug
Wholesale prices										
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	3.28	2.72	2.96	4.17	3.78	4.46	4.55	4.41	4.28	4.24
Wheat, DNS, Minneapolis (\$/bu.) 2/	3.25	2.62	2.92	4.25	4.09	4.45	4.50	4.29	4.21	4.22
Rice, S.W. La. (\$/cwt) 3/	16.11	10.25	19.25	14.85	16.80	13.50	15.40	15.50	15.60	16.40
Wheat										
Exports (mil. bu.)	915	1,004	1,592	1,424	114	122	97	92	140	138
Mill grind (mil. bu.)	703	755	753	778	70	59	63	59	61	72
Wheat flour production (mil. cwt)	314	335	336	348	31	27	28	26	27	32
Rice										
Exports (mil. cwt, rough equiv.)	58.7	84.2	72.2	85.6	3.6	6.5	11.6	4.0	1.4	--

	Marketing year 1/			1988				1989		
	1986/87	1987/88	1988/89	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	June-Aug
Wheat										
Stocks, beginning (mil. bu.)	1,905	1,821	1,261	2,500.6	1,923.5	1,260.8	2,253.6	1,709.9	1,221.7	697.6
Domestic use										
Food (mil. bu.)	696	726	727	170.8	181.6	181.4	196.4	175.8	173.0	191.2
Seed, feed & residual (mil. bu.) 4/	497	366	246	-4.2	24.0	282.4	23.6	-43.0	-8.0	274.0
Exports (mil. bu.)	1,004	1,592	1,424	413.1	460.6	363.4	330.1	363.0	368.1	369.9

1/ Beginning June 1 for wheat & August 1 for rice. 2/ Ordinary protein. 3/ Long grain, milled basis. 4/ Residual includes feed use. -- = not available.

Information contacts: Ed Allen & Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/				1988	1989				
	1985/86	1986/87	1987/88	1988/89	Aug	Apr	May	June	July	Aug
U.S. price, SLM,										
1-1/16 in. (cts./lb.) 2/	60.0	53.2	63.1	57.7	55.2	61.4	63.7	64.1	67.5	69.9
Northern Europe prices										
Index (cts./lb.) 3/	48.9	62.0	72.7	66.4	57.7	73.8	77.3	78.8	83.0	83.0
U.S. M 1-3/32 in. (cts./lb.) 4/	64.8	61.8	76.3	69.2	60.8	74.1	76.9	77.9	77.2	84.5
U.S. mill consumpt. (1,000 bales)	6,399	7,452	7,617	7,792	676	636	755	716	597	710
Exports (thou bales)	1,969	6,684	6,582	6,211	265	627	682	254	902	402
Stocks, beginning (1,000 bales)	4,102	9,348	5,026	5,771	5,771	12,613	11,350	9,914	8,914	7,093

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook (A) index; average of five lowest priced of 11 selected growths. 4/ Memphis territory growths.

Information contact: Bob Skinner (202) 786-1840.

Table 20.—Feed Grains

	Marketing year 1/				1988	1989				
	1984/85	1985/86	1986/87	1987/88	Aug	Apr	May	June	July	Aug
Wholesale prices										
Corn, no. 2 yellow, Chicago (\$/bu.)	2.79	2.35	1.64	2.14	2.79	2.72	2.77	2.68	2.50	2.30
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.46	3.72	2.73	3.40	4.28	4.17	4.29	4.15	3.96	3.88
Barley, feed, Duluth (\$/bu.) 2/	2.09	1.53	1.44	1.78	2.08	2.52	2.41	2.12	2.22	2.17
Barley, malting, Minneapolis (\$/bu.)	2.55	2.24	1.89	2.04	4.25	4.29	3.84	3.02	3.33	3.57
Exports 3/										
Corn (mil. bu.)	1,865	1,241	1,504	1,735	154.1	180.9	212.8	225.4	135.2	--
Feed grains (mil. metric tons) 4/	56.6	36.6	46.3	52.9	4.3	5.5	6.1	6.5	4.3	--
	Marketing year 1/				1988		1989			
	1984/85	1985/86	1986/87	1987/88	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	June-Aug	P Sept.-Nov.
Corn										
Stocks, beginning (mil. bu.)	1,006	1,648	4,040	4,882	5,836	4,259	7,072	5,204	3,419	1,930
Domestic use										
Feed (mil. bu.)	4,079	4,095	4,714	4,746	839	1,338	1,077	848	667	--
Food, seed, ind. (mil. bu.)	1,091	1,160	1,192	1,224	323	294	284	339	338	--
Exports (mil. bu.)	1,865	1,241	1,504	1,720	414	482	510	600	485	--
Total use (mil. bu.)	7,036	6,496	7,410	7,690	1,577	2,109	1,869	1,787	1,490	--

1/ September 1 for corn & sorghum; June 1 for oats & barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Includes products. 4/ Aggregated data for corn, sorghum, oats, & barley. P = preliminary. -- not available.

Information contact: Joy Harwood (202) 786-1840.

Table 21.—Fats &amp; Oils

	Marketing year *				1988	1989				
	1984/85	1985/86	1986/87	1987/88	July	Mar	Apr	May	June	July
Soybeans										
Wholesale price, no. 1 yellow, Chicago (\$/bu.)	5.88	5.20	5.03	6.67	8.55	7.62	7.25	7.30	7.17	6.97
Crushings (mil. bu.)	1,030.5	1,052.8	1,178.8	1,174.5	88.0	93.5	89.6	87.0	76.0	74.0
Exports (mil. bu.)	598.2	740.7	756.9	801.6	30.4	67.9	41.4	23.6	31.6	16.7
Stocks, beginning (mil. bu.)	175.7	316.0	536.0	436.0	90.1	112.0	99.2	72.8	52.5	46.1
Soybean oil										
Wholesale price, crude, Decatur (cts./lb.)	29.52	18.02	15.36	22.92	29.65	22.11	21.97	22.23	20.75	19.66
Production (mil. lb.)	11,467.9	11,617.3	12,783.1	12,974.5	994.2	1,041.2	1,004.0	977.4	856.1	835.9
Domestic disp. (mil. lb.)	9,888.5	10,045.9	10,820.2	10,734.1	994.7	937.8	1,032.9	831.8	844.2	932.7
Exports (mil. lb.)	1,659.9	1,257.3	1,184.5	1,873.2	157.2	112.4	105.5	161.4	72.1	159.3
Stocks, beginning (mil. lb.)	720.5	632.5	946.6	1,725.0	2,361.0	2,902.4	2,893.4	2,759.0	2,743.2	2,683.1
Soybean meal										
Wholesale price, 44% protein, Chicago (\$/ton)	125.46	154.88	162.61	221.90	255.60	237.10	220.75	214.70	227.50	231.50
Production (1,000 ton)	24,529.3	24,951.3	27,758.8	28,060.2	2,110.3	2,218.8	2,126.6	2,061.2	1,802.9	1,749.2
Domestic disp. (1,000 ton)	19,481.3	19,117.2	20,387.4	21,275.9	1,666.2	1,615.8	1,456.7	1,565.1	1,664.6	1,568.2
Exports (1,000 ton)	4,916.5	6,009.3	7,343.0	6,871.0	301.0	760.9	610.9	532.4	180.8	134.0
Stocks, beginning (1,000 ton)	255.4	386.9	211.7	240.2	294.4	395.7	237.9	296.8	260.4	218.0
Margarine, wholesale price, Chicago, white (cts./lb.)	55.5	51.2	40.3	40.3	58.81	55.44	55.76	55.15	53.76	53.26

\* Beginning September 1 for soybeans; October 1 for soy meal & oil; calendar year for margarine.

Information contacts: Roger Hoskin (202) 786-1840, Tom Bickerton (202) 786-1824.



Table 22.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Loan rate	Findley loan rate	Payment rates		Base acres 1/	Program 2/	Participation rate 3/
				Deficiency	Paid land diversion			
				\$/bu.	Percent 4/	Mil. acres		Percent of base
<b>Wheat</b>								
1984/85	4.38	3.30		1.00	2.70	85	20/10/10-20	60/60/20
1985/86	4.38	3.30		1.08	2.70		20/10/0	73
1986/87 5/	4.38	3.00	2.40	1.98	2.00	1.10	22.5/2.5/5-10	85/85/21
1987/88	4.38	2.85	2.28	1.81			27.5/0/0	88
1988/89	4.23	2.76	2.21	.69			27.5/0/0	86
1989/90	4.10	2.58	2.06	7/ .25			10/0/0	78
1990/91	4.00	2.45	1.95				* 5/0/0	
<b>Rice</b>								
				\$/cwt				
1984/85	11.90	8.00		3.76		4.16	25/0/0	85
1985/86	11.90	8.00		3.90	3.50	4.23	20/15/0	90
1986/87 5/	11.90	7.20	6/3.16	4.70		4.25	35/0/0	94
1987/88	11.66	6.84	6/5.77	4.82		4.18	35/0/0	96
1988/89	11.15	6.63	6/6.30	4.31		4.16	25/0/0	94
1989/90	10.80	6.50	6/6.50	3.50		4.12	25/0/0	94
<b>Corn</b>								
				\$/bu.				
1984/85	3.03	2.55		.43		80.8	10/0/0	54
1985/86	3.03	2.55		.48		84.2	10/0/0	69
1986/87 5/	3.03	2.40	1.92	1.11	.73	81.7	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	2.00	81.5	20/15/0	90
1988/89	2.93	2.21	1.77	7/ .36	1.75	82.9	20/10/0; 0/92	87
1989/90	2.84	2.06	1.65	7/ .84		82.7	10/0/0; 0/92	81
1990/91	2.75	1.96	1.57				10/0/0; 0/92	
<b>Sorghum</b>								
				\$/bu.				
1984/85	2.88	2.42		.46		18.4	8/(same)	42
1985/86	2.88	2.42		.46		19.3		55
1986/87 5/	2.88	2.28	1.82	1.06	.65	19.0		75
1987/88	2.88	2.17	1.74	1.14	1.90	17.4		84
1988/89	2.78	2.10	1.68	.48	1.65	16.8		82
1989/90	2.70	1.96	1.57	7/ .90		16.2		79
1990/91	2.61	1.86	1.49					
<b>Barley</b>								
				\$/bu.				
1984/85	2.60	2.08		.26		11.6	8/(same)	44
1985/86	2.60	2.08		.52		13.3		57
1986/87 5/	2.60	1.95	1.56	.99	.57	12.4		72
1987/88	2.60	1.86	1.49	.79	1.60	12.5		84
1988/89	2.51	1.80	1.44	0.00	1.40	12.5		79
1989/90	2.43	1.68	1.34	7/ .23		12.3		69
1990/91	2.36	1.60	1.28					
<b>Oats</b>								
				\$/bu.				
1984/85	1.60	1.31		0		9.8	8/(same)	14
1985/86	1.60	1.31		.29		9.4		14
1986/87 5/	1.60	1.23	.99	.39	.36	9.2		37
1987/88	1.60	1.17	.94	.20	.80	8.4		45
1988/89	1.55	1.13	.90	11/ 0.00		7.9	5/0/0; 0/92	30
1989/90	1.50	1.06	.85	0.00		7.6	5/0/0; 0/92	23
1990/91	1.45	1.01	.81				5/0/0; 0/92	
<b>Soybeans 9/</b>								
				\$/bu.				
1984/85		5.02						
1985/86		5.02						
1986/87 5/		4.77						
1987/88		4.77						
1988/89		4.77						
1989/90 10/		4.53						
<b>Upland cotton</b>								
				Cts./lb.				
1984/85	81.0	55.00		18.60		15.6	25/0/0	70
1985/86	81.0	57.30		23.70	30.00	15.9	20/10/0	82/0/0
1986/87 5/	81.0	55.00	11/44.00	26.00		15.5	25/0/0	93
1987/88	79.4	52.25	12/	17.3		14.5	25/0/0	93
1988/89	75.9	51.80		19.4		14.5	12.5/0/0	89
1989/90	73.4	50.00		9.90		14.6	25/0/0	89

1/ Includes planted area plus acres considered planted (ARP, PLD, 0-92 etc). Net of CRP. 2/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/PIK were required to devote to conserving uses to receive program benefits. 3/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PIK. 4/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1984 PIK rates apply only to the 10-20 portion. 5/ Rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 6/ Annual average world market price. 7/ Guaranteed to farmers signed up for 0/92. 8/ The sorghum, oats, & barley programs were the same as for corn in each year except 1988-90, when the oats ARP was lower than for the other feed grains. 9/ There are no target prices, acreage programs, or payment rates for soybeans. 10/ Loan rate was not to be announced prior to August 1, 1989. 11/ Loan repayment rate. 12/ Loans may be repaid at the lower of the loan rate or world market prices. \* On September 13, the Secretary announced that participating farmers have the option of planting up to 105 percent of their wheat base to boost 1990 supplies. For every acre planted in excess of 95 percent of base, the acreage used to compute deficiency payments will be cut by 1 acre.

Information contact: Joy Harwood (202) 786-1840.

Table 23.—Fruit

	1981	1982	1983	1984	1985	1986	1987	1988 P	1989 F			
Citrus 1/												
Production (1,000 ton)	15,105	12,057	13,608	10,792	10,525	11,051	11,968	13,134	11,799			
Per capita consumpt. (lbs.) 2/	104.4	109.3	120.0	102.8	109.1	117.3	112.8	113.6	--			
Noncitrus 3/												
Production (1,000 tons)	13,332	14,659	14,154	14,291	14,189	13,918	16,010	15,842	14,695			
Per capita consumpt. (lbs.) 2/	88.0	89.2	88.7	93.9	91.8	96.4	101.5	97.7	--			
	1988				1989							
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
F.o.b. shipping point prices												
Apples (\$/carton) 4/	20.45	13.80	12.15	12.63	10.78	13.94	12.32	11.25	9.41	7.86	9.55	11.31
Pears (\$/box) 5/	--	--	12.48	12.33	9.70	10.58	10.75	9.73	13.67	14.38	--	--
Oranges (\$/box) 6/	4.17	5.48	5.82	6.50	6.20	6.21	5.27	6.64	8.52	8.10	5.04	3.91
Grapefruit (\$/box) 6/	7.34	7.57	4.77	4.71	3.72	3.34	3.36	3.28	4.05	4.85	4.62	5.63
Stocks, ending												
Fresh apples (mil. lbs.)	1,857.7	4,601.8	3,904.3	3,265.8	2,659.6	2,094.6	1,544.2	1,069.1	619.3	347.3	174.9	8.0
Fresh pears (mil. lbs.)	434.0	425.7	368.3	295.5	234.6	162.9	115.1	57.7	26.6	6.4	11.0	157.9
Frozen fruits (mil. lbs.)	997.5	1,116.0	1,011.8	937.3	834.5	759.3	671.4	601.7	574.3	621.4	722.5	838.1
Frozen orange juice (mil. lbs.)	693.1	639.7	587.7	721.6	980.9	1,151.1	1,086.8	1,204.2	1,296.1	1,296.9	1,140.0	935.9

1/ Crop year beginning with year indicated. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. -- = not available.  
P = preliminary. F = forecast.

Information contact: Wynnie Happer (202) 786-1885.

Table 24.—Vegetables

	Calendar year												
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988			
Production													
Total vegetables (1,000 cwt) 1/	413,925	381,370	379,123	431,515	403,320	457,392	453,769	445,436	464,141	452,731			
Fresh (1,000 cwt) 1/ 2/	190,859	190,228	194,694	207,924	197,919	217,132	217,932	216,267	219,689	225,784			
Processed (tons) 3/	11,153,300	9,557,100	9,221,460	11,179,590	10,270,050	12,013,020	11,791,860	11,616,560	12,222,620	11,347,370			
Mushrooms (1,000 lbs.)	470,069	469,576	517,146	490,826	561,531	595,681	587,956	614,393	631,819	667,367			
Potatoes (1,000 cwt)	342,447	302,857	338,591	355,131	333,911	362,612	407,109	361,511	385,462	349,973			
Sweetpotatoes (1,000 cwt)	13,370	10,953	12,799	14,833	12,083	12,986	14,853	12,674	12,064	11,832			
Dry edible beans (1,000 cwt)	20,552	26,729	32,751	25,563	15,520	21,070	22,175	22,886	25,909	19,230			
	1988					1989							
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Shipments													
Fresh (1,000 cwt) 4/	21,791	15,215	16,475	20,999	16,535	18,041	18,754	24,944	20,887	35,676	31,223	21,599	20,908
Potatoes (1,000 cwt)	10,014	9,963	9,958	13,948	11,092	11,137	10,497	14,733	13,005	15,768	9,991	8,466	8,359
Sweetpotatoes (1,000 cwt)	212	262	305	876	460	246	278	441	229	190	20	19	45

1/ 1983 data are not comparable with 1984 & 1985. 2/ Estimate reinstated for asparagus with the 1984 crop; all other years also include broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 3/ Estimates reinstated for cucumbers with the 1984 crop; all other years also include snap beans, sweet corn, green peas, & tomatoes. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons.  
-- = not available.

Information contacts: Shannon Hamm or Cathy Greene (202) 786-1884.

Table 25.—Other Commodities

	Annual					1988				1989	
	1984	1985	1986	1987	1988	Apr-June	July-Sept	Oct-Dec		Jan-Mar	Apr-June
Sugar											
Production 1/	5,890	5,969	6,257	7,309	7,087	772	642	3,573		1,835	677
Deliveries 1/	8,454	8,035	7,786	8,167	8,188	1,983	2,147	2,107		1,902	3,958
Stocks, ending 1/	3,005	3,126	3,225	3,195	3,134	2,467	1,316	3,134		3,413	2,351
Coffee											
Composite green price N.Y. (cts./lb.)	142.95	137.46	185.18	109.14	115.59	121.44	114.20	120.75		126.67	118.01
Imports, green bean equiv. (mil. lbs.) 2/	2,411	2,550	2,596	2,638	2,072	422	594	472		586	535
	Annual				1988	1989					
	1986	1987	1988	June	Jan	Feb	Mar	Apr	May	June	
Tobacco											
Prices at auctions 3/											
Flue-cured (\$/lb.)	1.52	1.59	1.61	--	--	--	--	--	--	--	--
Burley (\$/lb.)	1.60	1.56	1.61	--	1.60	1.54	--	--	--	--	--
Domestic consumption 4/											
Cigarettes (bil.)	584.0	575.0	562.5	52.7	46.9	41.9	51.7	44.4	52.9	51.5	
Large cigars (mil.)	3,055	2,728	2,531	260.4	169.3	171.4	217.6	179.2	250.8	255.0	

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. -- = not available.

Information contacts: sugar, Peter Buzzanell (202) 786-1888, coffee, Fred Gray (202) 786-1888, tobacco, Verner Grise (202) 786-1890.



Table 26.—World Supply &amp; Utilization of Major Crops, Livestock, &amp; Products

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89 P	1989/90 F
Million units							
Wheat							
Area (hectares)	228.9	231.2	229.6	228.2	219.9	218.2	226.1
Production (metric tons)	489.3	511.9	500.1	530.7	501.7	501.2	530.2
Exports (metric tons) 1/	102.0	107.0	85.0	90.7	104.9	97.8	98.5
Consumption (metric tons) 2/	474.0	493.0	496.2	522.5	531.3	531.7	538.0
Ending stocks (metric tons) 3/	145.1	164.0	167.9	176.1	146.4	115.9	108.0
Coarse grains							
Area (hectares)	335.0	334.6	341.3	337.3	323.2	327.5	327.9
Production (metric tons)	688.1	815.8	843.3	835.5	791.7	729.8	805.2
Exports (metric tons) 1/	93.4	100.4	83.2	84.1	83.3	95.4	96.7
Consumption (metric tons) 2/	759.3	782.6	779.0	809.6	812.3	798.2	814.8
Ending stocks (metric tons) 3/	110.7	143.9	208.1	234.0	213.5	145.1	135.5
Rice, milled							
Area (hectares)	144.1	144.1	144.6	145.1	140.6	145.1	145.6
Production (metric tons)	307.9	318.8	318.8	318.3	312.8	328.6	331.4
Exports (metric tons) 4/	12.4	11.4	12.6	13.0	11.9	14.6	13.6
Consumption (metric tons) 2/	304.5	310.6	319.4	323.2	319.0	326.2	331.7
Ending stocks (metric tons) 3/	46.6	54.9	54.7	50.2	44.0	46.4	46.0
Total grains							
Area (hectares)	708.0	709.9	715.5	710.6	683.7	690.8	699.6
Production (metric tons)	1,485.3	1,646.5	1,662.2	1,684.5	1,606.2	1,559.6	1,666.8
Exports (metric tons) 1/	207.8	218.8	180.8	187.8	200.1	207.8	208.8
Consumption (metric tons) 2/	1,537.8	1,586.2	1,594.6	1,655.3	1,662.6	1,656.1	1,684.5
Ending stocks (metric tons) 3/	302.4	362.8	430.7	460.3	403.9	307.4	289.5
Oilseeds							
Crush (metric tons)	135.8	150.7	155.0	161.4	166.9	165.5	173.9
Production (metric tons)	165.0	191.1	196.1	194.2	207.9	201.9	215.3
Exports (metric tons)	33.0	33.1	34.5	37.7	39.5	31.8	33.8
Ending stocks (metric tons)	15.7	21.1	26.8	23.5	23.8	22.0	23.0
Meals							
Production (metric tons)	92.5	101.8	105.0	110.4	114.3	112.2	118.5
Exports (metric tons)	29.7	32.3	34.4	36.7	36.3	36.5	39.6
Oils							
Production (metric tons)	42.1	46.2	49.3	50.3	52.7	53.4	56.2
Exports (metric tons)	13.7	15.6	16.4	16.9	17.6	17.4	18.5
Cotton							
Area (hectares)	31.0	33.9	31.9	29.9	31.1	34.0	32.8
Production (bales)	65.6	88.2	79.6	70.4	80.8	84.2	79.9
Exports (bales)	19.2	20.2	20.2	26.0	23.1	25.8	25.0
Consumption (bales)	68.3	70.0	75.8	82.5	83.8	84.1	85.4
Ending stocks (bales)	24.0	42.4	47.2	33.6	30.9	30.1	24.3
	1983	1984	1985	1986	1987	1988	1989 F
Red meat							
Production (metric tons)	97.5	99.6	103.5	106.4	108.8	109.9	110.5
Consumption (metric tons)	95.8	97.6	101.5	105.3	107.1	108.6	109.1
Exports (metric tons) 1/	5.9	5.9	6.2	6.6	6.6	6.7	7.0
Poultry							
Production (metric tons)	24.4	25.2	26.2	27.4	29.2	30.1	31.3
Consumption (metric tons)	24.3	24.8	26.0	27.0	28.8	29.7	30.8
Exports (metric tons) 1/	1.3	1.3	1.2	1.3	1.5	1.5	1.6
Dairy							
Milk production (metric tons)	413.0	413.5	419.1	427.0	427.0	430.5	433.1

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1984 data correspond with 1983/84, etc. P = preliminary. F = forecast.

Information contacts: Frederic Surls (202) 786-1824; red meat & poultry, Linda Bailey (202) 786-1286; dairy, Sara Short (202) 786-1769.

## U.S. Agricultural Trade

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1988		1989				
	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.19	3.11	3.97	4.10	4.88	4.79	4.82	4.62	4.57	4.49
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.27	1.95	2.73	3.03	3.03	2.95	3.02	2.91	2.74	2.58
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.16	1.88	2.52	2.78	2.83	2.76	2.84	2.67	2.60	2.54
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	5.45	5.55	7.81	8.77	8.05	7.61	7.61	7.48	7.26	6.28
Soybean oil, Decatur (cts./lb.)	16.36	15.85	23.52	26.74	22.02	21.88	22.23	20.78	19.87	17.86
Soybean meal, Decatur (\$/ton)	157.62	175.57	234.75	257.46	235.70	220.90	215.09	227.36	230.23	214.70
Cotton, 8-market avg. spot (cts./lb.)	53.47	64.35	57.25	55.20	57.60	61.43	63.70	64.18	67.39	69.99
Tobacco, avg. price at auction (cts./lb.)	153.96	144.32	147.93	146.17	159.74	160.43	160.43	160.43	160.31	158.59
Rice, f.o.b. mill, Houston (\$/cwt)	14.60	13.15	19.60	18.20	15.00	15.00	15.00	15.50	16.50	16.50
Indeible tallow, Chicago (cts./lb.)	9.03	13.79	16.64	17.44	14.86	14.60	14.70	15.10	14.48	13.52
Import commodities										
Coffee, N.Y. spot (\$/lb.)	2.01	1.09	1.21	1.11	1.28	1.33	1.36	1.21	.88	.78
Rubber, N.Y. spot (cts./lb.)	42.87	50.65	59.20	63.84	56.69	55.23	52.07	49.50	49.16	47.21
Cocoa beans, N.Y. (\$/lb.)	.88	.87	.69	.63	.64	.58	.54	.54	.58	.55

Information contact: Mary Teymourian (202) 786-1820.

Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates<sup>1</sup>

	1988			1989								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr P	May P	June P	July P	Aug P	Sept P
	1985 = 100											
Total U.S. trade 2/	68.9	66.3	66.3	68.6	69.3	70.2	70.4	73.2	74.7	72.0	72.6	73.2
Agricultural trade												
U.S. markets	77.8	75.7	75.7	77.1	77.5	79.5	79.2	81.1	82.2	80.7	80.7	81.4
U.S. competitors	83.5	82.1	81.7	81.8	81.8	82.2	82.2	83.6	83.8	84.6	84.5	85.0
Wheat												
U.S. markets	89.5	88.1	89.1	90.8	91.3	94.0	93.2	94.3	94.4	95.0	94.8	95.7
U.S. competitors	78.3	77.0	76.1	76.2	76.1	77.2	77.5	79.2	79.9	78.6	78.2	78.5
Soybeans												
U.S. markets	69.7	67.2	67.1	69.1	69.6	70.3	70.3	72.6	74.2	72.0	72.4	72.9
U.S. competitors	76.1	75.5	74.3	71.9	70.3	72.6	71.9	71.2	70.1	76.9	77.0	78.5
Corn												
U.S. markets	69.8	67.4	67.2	68.3	68.6	70.6	70.1	72.0	73.6	72.1	72.0	72.8
U.S. competitors	76.0	74.1	73.6	73.9	73.4	73.4	73.7	76.0	76.7	75.1	75.6	75.9
Cotton												
U.S. markets	75.3	73.1	72.9	74.2	74.4	75.0	74.8	76.2	77.3	76.1	76.0	76.3
U.S. competitors	84.0	82.5	82.0	81.8	80.9	83.0	81.5	83.4	83.1	83.1	82.2	82.5

1/ Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. 2/ Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter, David Stallings (202) 786-1706.

Table 29.—Trade Balance

	Fiscal year 1/									July
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1989
	\$ million									
Exports										
Agricultural	43,783	39,097	34,769	38,027	31,201	26,312	27,876	35,334	39,000	2,965
Nonagricultural	185,420	176,308	159,373	170,014	179,236	179,291	202,911	258,638	--	24,929
Total 2/	229,203	215,405	194,142	208,041	210,437	205,603	230,787	293,972	--	27,894
Imports										
Agricultural	17,218	15,485	16,373	18,916	19,740	20,884	20,650	21,011	21,000	1,695
Nonagricultural	237,469	233,349	230,527	297,736	313,722	342,846	367,374	409,141	--	36,922
Total 3/	254,687	248,834	246,900	316,652	333,462	363,730	388,024	430,152	--	38,617
Trade balance										
Agricultural	26,565	23,612	18,396	19,111	11,461	5,428	7,226	14,323	18,000	1,270
Nonagricultural	-52,049	-57,041	-71,154	-127,722	-134,486	-163,555	-164,463	-150,503	--	-11,993
Total	-25,484	-33,429	-52,758	-108,611	-123,025	-158,127	-157,237	-136,180	--	-10,723

1/ Fiscal years begin October 1 & end September 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989.

2/ Domestic exports including Department of Defense shipments (F.A.S. value). 3/ Imports for consumption (customs value). F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.



Table 30.—U.S. Agricultural Exports & Imports

	Fiscal year*				July	Fiscal year*				July
	1986	1987	1988	1989 F	1989	1986	1987	1988	1989 F	1989
	1,000 units					\$ million				
EXPORTS										
Animals, live (no.) 1/	570	275	1,082	--	24	344	331	452	--	16
Meats & preps., excl. poultry (mt)	451	548	631	2/600	84	1,012	1,300	1,797	--	203
Dairy products (mt)	480	445	388	--	62	431	491	536	500	42
Poultry meats (mt)	265	376	390	400	40	282	406	424	--	44
Fats, oils, & greases (mt)	1,355	1,220	1,362	3/1,400	102	477	417	545	--	38
Hides & skins incl. furskins	--	--	--	--	--	1,440	1,666	1,838	--	149
Cattle hides, whole (no.) 1/	25,596	24,333	23,282	--	2,403	1,131	1,254	1,457	--	123
Mink pelts (no.) 1/	2,697	2,760	2,455	--	248	65	103	88	--	6
Grains & feeds (mt)	74,358	90,211	108,905	--	9,081	9,472	9,059	12,581	4/16,300	1,355
Wheat (mt)	25,501	28,204	40,501	37,000	3,718	3,260	2,877	4,467	5/6,200	584
Wheat flour (mt)	1,094	1,305	1,046	1,300	36	203	207	171	--	9
Rice (mt)	2,382	2,454	2,173	2,400	270	648	551	731	800	93
Feed grains, incl. products (mt)	36,236	47,606	53,308	62,500	4,273	3,817	3,752	5,209	7,500	514
Feeds & fodders (mt)	8,392	10,113	11,233	6/11,000	741	1,286	1,455	1,719	--	126
Other grain products (mt)	1,015	755	908	--	83	332	285	361	--	43
Fruits, nuts, and preps. (mt)	2,003	2,146	2,409	--	193	1,766	2,050	2,368	--	181
Fruit juices incl.										
froz. (1,000 hectoliters) 1/	3,652	4,364	5,497	--	545	148	185	252	--	29
Vegetables & preps. (mt)	1,442	1,629	1,826	--	216	997	1,176	1,282	--	123
Tobacco, unmanufactured (mt)	224	224	229	200	7	1,318	1,203	1,296	1,300	48
Cotton, excl. linters (mt)	482	1,306	1,388	1,400	196	678	1,419	2,136	2,000	288
Seeds (mt)	269	305	286	--	55	367	371	415	400	32
Sugar, cane or beet (mt)	375	582	318	--	19	75	113	98	--	7
Oilseeds & products (mt)	27,583	29,725	29,471	--	757	6,271	6,308	7,700	6,800	253
Oilseeds (mt)	20,684	21,905	21,366	--	508	4,394	4,423	5,238	--	149
Soybeans (mt)	20,139	21,394	20,908	15,400	446	4,174	4,205	5,008	4,300	123
Protein meal (mt)	5,614	6,786	6,406	4,500	123	1,132	1,347	1,502	1,300	31
Vegetable oils (mt)	1,284	1,035	1,699	--	126	746	538	961	--	73
Essential oils (mt)	7	8	9	--	1	105	111	120	--	13
Other	568	565	668	--	24	1,129	1,273	1,495	--	143
Total	109,862	129,290	148,280	146,500	10,837	26,312	27,876	35,334	39,000	2,965
IMPORTS										
Animals, live (no.) 1/	1,885	1,994	2,238	--	100	637	610	729	700	23
Meats & preps., excl. poultry (mt)	1,139	1,282	1,280	--	91	2,248	2,797	2,788	--	210
Beef & veal (mt)	693	778	779	725	62	1,252	1,575	1,681	1,600	146
Pork (mt)	406	462	456	410	24	900	1,125	1,001	900	53
Dairy products (mt)	768	461	337	355	20	787	849	881	800	79
Poultry & products 1/	--	--	--	--	--	101	112	97	--	12
Fats, oils, & greases (mt)	22	21	20	--	1	17	18	19	--	2
Hides & skins, incl. furskins 1/	--	--	--	--	--	200	304	247	--	8
Wool, unmanufactured (mt)	53	60	56	--	6	160	201	292	--	23
Grains & feeds (mt)	2,299	2,336	3,050	3,300	277	670	727	868	1,000	90
Fruits, nuts, & preps., excl. juices (mt)	4,637	4,840	4,797	4,795	383	1,980	2,178	2,169	--	170
Bananas & plantains (mt)	3,042	3,106	3,030	2,950	272	744	817	820	800	76
Fruit juices (1,000 hectoliters) 1/	31,539	34,059	26,758	27,000	1,614	698	728	768	--	43
Vegetables & preps. (mt)	2,199	2,446	2,520	2,550	181	1,560	1,509	1,593	1,700	123
Tobacco, unmanufactured (mt)	208	225	217	200	20	606	634	611	500	66
Cotton, unmanufactured (mt)	41	38	36	--	3	14	7	9	--	1
Seeds (mt)	89	133	143	170	2	111	156	153	200	9
Nursery stock & cut flowers 1/	--	--	--	--	--	352	369	419	--	24
Sugar, cane or beet (mt)	1,905	1,492	1,069	--	181	654	497	368	--	72
Oilseeds & products (mt)	1,515	1,572	1,772	1,865	101	641	579	838	900	61
Oilseeds (mt)	197	165	208	--	11	69	56	71	--	6
Protein meal (mt)	138	245	253	--	22	15	30	42	--	4
Vegetable oils (mt)	1,173	1,162	1,311	--	68	555	493	725	--	52
Beverages excl. fruit										
Juices (1,000 hectoliters) 1/	15,488	15,547	15,583	--	1,298	1,848	1,923	2,008	--	154
Coffee, tea, cocoa, spices (mt)	1,940	1,915	1,842	--	163	6,099	4,867	4,274	--	339
Coffee, incl. products (mt)	1,223	1,206	1,050	1,000	104	4,402	3,233	2,600	2,800	234
Cocoa beans & products (mt)	507	503	562	530	39	1,191	1,088	1,164	1,000	62
Rubber & allied gums (mt)	801	824	846	875	78	615	714	949	1,000	83
Other	--	--	--	--	--	886	871	931	--	105
Total	--	--	--	--	--	20,884	20,650	21,011	21,000	1,695

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal Year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/5-6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 m. tons. 3/ 1,347 million dollars 4/ 12,743 million. 5/ 4,638 million. i.e. includes flour. 6/ 11,095 million m. tons. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*				July	Change from year* earlier				July
	1986	1987	1988	1989 F	1989	1986	1987	1988	1989 F	1989
	\$ million					Percent				
Western Europe	6,851	7,219	8,029	7,400	349	-5	5	11	-7	-17
European Community (EC-12)	6,435	6,787	7,513	6,900	314	-3	5	11	-8	-21
Belgium-Luxembourg	361	423	429	--	30	-23	17	1	--	32
France	431	495	565	--	23	9	15	14	--	-5
Germany, Fed. Rep.	1,001	1,266	1,306	--	43	11	26	3	--	-37
Italy	686	733	713	--	55	1	6	-3	--	81
Netherlands	2,042	1,954	2,087	--	69	6	-4	7	--	-46
United Kingdom	628	666	819	--	43	0	6	23	--	-30
Portugal	308	271	340	--	21	-39	-12	25	--	31
Spain, incl. Canary Islands	723	658	848	--	14	-13	-9	29	--	-48
Other Western Europe	415	432	516	500	35	-19	4	20	0	42
Switzerland	128	145	191	--	13	-45	13	32	--	42
Eastern Europe	447	453	559	400	20	-16	1	23	-33	23
German Dem. Rep.	52	66	67	--	3	-36	27	0	--	572
Poland	42	63	167	--	3	-66	50	165	--	-50
Yugoslavia	134	131	104	--	4	-2	-2	-21	--	12
Romania	112	115	93	--	4	27	3	-19	--	10
USSR	1,105	659	1,934	3,500	158	-56	-40	193	-84	231
Asia	10,494	11,990	15,928	18,800	1,609	-12	14	33	18	24
West Asia (Mideast)	1,243	1,664	1,903	2,200	217	-14	34	14	16	18
Turkey	111	117	120	--	31	-13	5	3	--	715
Iraq	335	528	735	900	63	-10	58	39	29	-7
Israel	255	244	334	--	31	-15	-4	37	--	-38
Saudi Arabia	335	489	464	400	47	-12	46	-5	-13	30
South Asia	517	345	805	--	83	-14	-33	133	--	57
Bangladesh	94	111	107	--	20	-54	18	-3	--	3,110
India	90	93	354	--	17	-30	3	281	--	-34
Pakistan	285	98	276	500	28	25	-66	181	67	8
China	83	235	613	1,500	205	-65	183	161	150	162
Japan	5,139	5,554	7,274	8,100	636	-9	8	31	11	13
Southeast Asia	724	708	1,015	--	82	-14	-2	43	--	2
Indonesia	172	152	238	--	31	-16	-12	56	--	34
Philippines	269	259	345	400	19	-6	-4	33	33	-43
Other East Asia	2,788	3,485	4,318	4,700	387	-11	25	24	9	14
Taiwan	1,109	1,354	1,577	1,600	113	-17	22	16	0	-8
Korea, Rep.	1,277	1,693	2,250	2,500	216	-9	33	33	11	22
Hong Kong	400	436	488	600	58	1	9	12	20	47
Africa	2,134	1,784	2,272	2,400	188	-16	-16	27	6	-17
North Africa	1,401	1,279	1,659	1,900	151	16	-9	30	12	-3
Morocco	159	196	193	--	3	2	23	-2	--	-82
Algeria	329	244	537	700	62	50	-26	120	30	98
Egypt	875	761	786	1,000	72	14	-13	3	25	-20
Sub-Sahara	733	505	613	500	37	-44	-31	21	-17	-48
Nigeria	158	67	44	--	1	-57	-58	-35	--	-79
Rep. S. Africa	70	49	85	--	2	-63	-30	74	--	-83
Latin America & Caribbean	3,598	3,765	4,401	5,100	434	-21	5	17	16	1
Brazil	445	418	176	100	16	-20	-6	-58	-50	335
Caribbean Islands	752	829	867	--	86	-2	10	5	--	24
Central America	334	377	413	--	42	-7	13	10	--	3
Colombia	137	115	178	--	13	-42	-16	55	--	-23
Mexico	1,114	1,215	1,726	2,400	209	-29	9	42	41	7
Peru	108	140	174	--	9	2	30	24	0	-20
Venezuela	493	459	597	600	36	-32	-7	30	0	-42
Canada	1,466	1,776	1,973	2,200	169	-15	21	11	10	1
Oceania	216	230	238	300	19	6	6	3	50	-14
Total	26,312	27,876	35,334	40,000	2,965	-16	6	27	13	13
Developed countries	13,957	15,031	17,883	18,400	1,220	-8	8	19	3	-1
Less developed countries	10,720	11,498	14,346	16,100	1,362	-15	7	25	13	8
Centrally planned countries	1,636	1,347	3,106	5,500	383	-50	-18	131	77	169

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. F = forecast.

-- = not available.

Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 786-1822.



## Table 32.—Farm Income Statistics

	Calendar year										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ billion										
1. Farm receipts	133.8	142.0	144.1	147.1	141.1	146.8	149.1	140.6	145.3	157.2	158 to 168
Crops (incl. net CCC loans)	62.3	71.7	72.5	72.3	67.1	69.5	74.3	64.0	63.8	72.6	75 to 79
Livestock	69.2	68.0	69.2	70.3	69.4	73.0	69.8	71.5	75.7	78.9	78 to 82
Farm related 1/	2.2	2.3	2.5	4.5	4.5	4.4	5.0	5.1	5.8	5.7	5 to 7
2. Direct Government payments	1.4	1.3	1.9	3.5	9.3	8.4	7.7	11.8	16.7	14.5	9 to 12
Cash payments	1.4	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.6	8.0	8 to 10
Value of P&K commodities	0.0	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.1	7.0	1 to 2
3. Total gross farm income (4+5+6) 2/	150.7	149.3	166.4	163.5	153.1	174.9	166.4	160.4	171.6	177.6	187 to 192
4. Gross cash income (1+2)	135.1	143.3	146.0	150.6	150.4	155.2	156.9	152.5	162.0	171.6	170 to 175
5. Nonmoney income 3/	10.6	12.3	13.8	14.3	13.5	13.4	11.8	10.6	10.0	10.3	8 to 10
6. Value of inventory change	5.0	-6.3	6.5	-1.4	-10.9	6.3	-2.4	-2.7	-1.4	-4.3	4 to 7
7. Cash expenses 4/	101.7	109.1	113.2	112.8	113.5	116.6	110.2	100.7	104.3	111.7	116 to 120
8. Total expenses	123.3	133.1	139.4	140.0	140.4	142.7	134.0	122.4	124.5	132.0	136 to 140
9. Net cash income (4-7)	33.4	34.2	32.8	37.8	36.9	38.6	46.7	51.8	57.7	59.9	52 to 57
10. Net farm income (3-8)	27.4	16.1	26.9	23.5	12.7	32.2	32.4	38.0	47.1	45.7	48 to 53
Deflated (1982\$)	34.9	18.8	28.6	23.5	12.2	29.9	29.2	33.4	40.0	37.6	39 to 43
11. Off-farm income	33.8	34.7	35.8	36.4	37.0	38.9	42.6	44.6	46.8	51.7	51 to 55
12. Loan changes 5/: Real estate	13.0	9.9	9.1	3.8	2.3	-1.1	-6.0	-9.2	-7.7	-4.0	0 to 3
13. 5/: Non-real estate	11.2	5.3	6.5	3.4	0.9	-0.8	-9.6	-10.7	-4.9	1.0	0 to 2
14. Rental income plus monetary change	6.3	6.1	6.4	6.3	5.3	8.9	8.8	7.8	6.8	8.0	7 to 9
15. Capital expenditures 5/	20.1	18.0	16.8	13.3	12.7	12.5	9.2	8.5	9.8	10.2	10 to 12
16. Net cash flow (9+12+13+14-15)	43.8	37.6	37.8	38.1	32.7	33.1	30.7	31.2	42.1	52.7	48 to 58

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast.

Information contact: Diane Bertelsen (202) 786-1808.

## Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ billion										
<b>Assets</b>											
Real estate	706.1	782.4	784.7	748.8	738.7	637.7	555.9	507.3	518.5	546.0	580 to 590
Non-real estate	201.6	213.2	212.0	212.2	205.6	209.0	190.5	182.2	187.8	202.5	196 to 202
Livestock & poultry	61.4	60.6	53.5	53.0	49.7	49.6	46.3	47.6	57.9	65.7	65 to 69
Machinery & motor vehicles	85.8	93.1	101.4	102.0	100.8	96.9	87.6	80.3	73.9	74.7	74 to 78
Crops stored 2/	29.2	33.0	29.1	27.7	23.9	29.7	23.6	19.1	20.9	26.2	18 to 22
Financial assets	25.3	26.5	28.0	29.5	31.3	32.8	33.0	35.2	35.2	35.9	35 to 37
Total farm assets	907.7	995.6	996.7	961.0	944.3	846.7	746.4	689.5	706.3	748.5	780 to 790
<b>Liabilities</b>											
Real estate debt 3/	79.7	89.6	98.7	102.5	104.8	103.6	97.6	88.6	81.1	76.7	75 to 79
Non-real estate debt 4/	71.8	77.1	83.6	87.0	87.9	87.1	77.5	66.6	62.0	61.7	60 to 64
Total farm debt	151.6	166.8	182.3	189.5	192.7	190.7	175.1	155.1	143.1	138.4	134 to 142
Total farm equity	756.1	828.9	814.4	771.5	751.6	656.0	571.3	534.4	563.3	610.0	643 to 653
	Percent										
<b>Selected ratios</b>											
Debt-to-assets	16.7	16.8	18.3	19.7	20.4	22.5	23.5	22.5	20.3	18.5	17 to 18
Debt-to-equity	20.1	20.1	22.4	24.6	25.6	29.1	30.6	29.0	25.4	22.7	21 to 22
Debt-to-net cash income 454	454	488	556	497	523	493	375	299	248	231	243 to 253

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.

**Table 34.—Cash Receipts from Farm Marketings, by State**

Region & State	Livestock & products				Crops 1/				Total 1/			
	1987	1988	June 1989	July 1989	1987	1988	June 1989	July 1989	1987	1988	June 1989	July 1989
	\$ million 2/											
<b>North Atlantic</b>												
Maine	228	216	18	18	184	188	2	10	412	404	20	28
New Hampshire	67	60	5	5	72	77	3	5	139	137	8	10
Vermont	377	352	28	28	45	53	2	6	422	405	30	35
Massachusetts	121	105	9	9	259	297	15	17	379	402	24	26
Rhode Island	13	13	1	1	64	65	2	3	77	78	4	4
Connecticut	191	180	15	15	194	202	11	15	385	382	26	30
New York	1,809	1,781	143	145	800	824	45	65	2,610	2,605	188	210
New Jersey	195	192	16	16	438	450	49	61	633	642	65	77
Pennsylvania	2,310	2,348	206	204	904	935	63	76	3,213	3,284	269	280
<b>North Central</b>												
Ohio	1,616	1,604	138	134	1,862	2,025	135	219	3,478	3,629	273	353
Indiana	1,874	1,749	164	145	1,832	2,367	156	268	3,706	4,117	320	413
Illinois	2,249	2,243	180	179	3,850	4,218	427	218	6,099	6,461	607	397
Michigan	1,282	1,206	108	106	1,311	1,464	92	184	2,594	2,670	201	290
Wisconsin	4,216	4,281	365	369	799	767	50	66	5,015	5,048	415	435
Minnesota	3,561	3,364	307	280	2,270	2,743	227	224	5,831	6,107	534	504
Iowa	5,202	5,045	400	391	3,563	4,029	307	288	8,765	9,074	707	679
Missouri	2,102	2,011	170	148	1,586	1,814	228	78	3,687	3,826	398	226
North Dakota	762	849	48	36	1,601	1,574	96	123	2,363	2,423	144	158
South Dakota	1,907	1,965	111	117	820	945	49	80	2,726	2,911	161	197
Nebraska	4,857	5,336	406	362	1,967	2,643	232	259	6,824	7,979	639	621
Kansas	3,919	4,265	349	328	1,963	2,329	153	227	5,882	6,594	502	555
<b>Southern</b>												
Delaware	370	444	47	46	116	149	11	9	487	592	59	55
Maryland	734	768	68	68	405	459	31	55	1,140	1,226	99	124
Virginia	1,275	1,294	102	100	484	592	40	58	1,759	1,886	142	158
West Virginia	174	179	14	14	60	70	5	6	234	248	19	19
North Carolina	2,111	2,179	213	196	1,658	1,994	123	72	3,768	4,173	336	267
South Carolina	450	488	35	36	479	590	81	43	929	1,078	116	78
Georgia	1,825	2,011	209	187	1,299	1,553	114	84	3,124	3,544	323	271
Florida	1,086	1,114	91	88	4,368	4,697	327	175	5,454	5,811	418	263
Kentucky	1,507	1,538	95	323	940	992	57	51	2,448	2,530	152	374
Tennessee	1,110	1,080	102	80	874	965	65	41	1,984	2,046	166	120
Alabama	1,521	1,695	171	154	633	706	50	36	2,154	2,400	221	191
Mississippi	1,042	1,176	118	111	945	1,164	48	20	1,987	2,341	166	131
Arkansas	2,083	2,278	245	219	1,112	1,696	166	67	3,195	3,974	411	285
Louisiana	511	587	57	55	965	1,299	34	23	1,476	1,885	91	79
Oklahoma	2,066	2,284	173	168	811	1,127	186	130	2,877	3,410	358	297
Texas	6,092	6,498	577	553	2,907	3,783	262	287	8,998	10,281	839	839
<b>Western</b>												
Montana	747	816	32	25	608	570	29	49	1,355	1,386	61	74
Idaho	924	1,033	74	77	1,164	1,258	69	71	2,089	2,291	143	148
Wyoming	528	575	21	20	127	156	3	9	655	730	24	29
Colorado	2,323	2,655	190	209	885	1,037	86	105	3,207	3,692	276	314
New Mexico	817	910	56	46	351	362	44	49	1,168	1,272	100	95
Arizona	773	793	62	55	987	1,167	86	55	1,760	1,959	149	110
Utah	466	537	41	38	134	150	9	15	600	687	50	53
Nevada	164	150	12	10	69	79	4	7	232	229	16	17
Washington	981	1,141	93	93	1,880	2,146	168	133	2,862	3,287	261	225
Oregon	655	669	48	54	1,236	1,427	84	208	1,890	2,096	132	262
California	4,426	4,704	409	407	11,382	11,894	1,146	1,201	15,808	16,598	1,555	1,609
Alaska	11	10	1	1	19	20	1	2	30	30	2	3
Hawaii	88	89	8	7	473	479	39	41	560	568	47	48
<b>United States</b>	<b>75,717</b>	<b>78,862</b>	<b>6,552</b>	<b>6,473</b>	<b>63,751</b>	<b>72,569</b>	<b>5,714</b>	<b>5,593</b>	<b>139,468</b>	<b>151,431</b>	<b>12,266</b>	<b>12,066</b>

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786-1804.



**Table 35.—Cash Receipts from Farming**

	Annual						1988	1989				
	1983	1984	1985	1986	1987	1988	July	Mar	Apr	May	June	July
	\$ million											
Farm marketings & CCC loans <sup>a</sup>	136,567	142,439	144,135	135,539	139,468	151,431	11,871	11,854	11,363	11,747	12,266	12,066
Livestock & products	69,438	72,968	69,845	71,534	75,717	78,862	6,211	6,820	6,649	6,901	6,552	6,473
Meat animals	38,893	40,832	38,589	39,122	44,276	45,975	3,129	3,872	3,711	3,802	3,545	3,281
Dairy products	18,763	17,944	18,063	17,753	17,710	17,668	1,432	1,568	1,559	1,612	1,508	1,537
Poultry & eggs	9,981	12,223	11,211	12,661	11,480	12,864	1,262	1,221	1,221	1,326	1,330	1,271
Other	1,801	1,969	1,982	1,997	2,252	2,354	388	159	158	161	170	383
Crops	67,129	69,471	74,290	64,005	63,751	72,569	5,660	5,035	4,714	4,846	5,714	5,593
Food grains	9,713	9,740	8,993	5,638	5,581	7,700	1,194	292	312	436	1,398	1,342
Feed crops	15,535	15,668	22,520	17,161	13,102	15,291	1,614	1,182	868	1,014	1,427	1,248
Cotton (lint & seed)	3,705	3,674	3,687	3,605	4,087	4,668	37	66	135	98	56	118
Tobacco	2,752	2,813	2,722	1,918	1,827	2,039	10	0	21	0	0	19
Oil-bearing crops	13,546	13,641	12,474	10,571	11,159	13,699	666	731	513	546	488	374
Vegetables & melons	8,459	9,138	8,558	8,826	9,718	9,819	633	911	956	1,062	812	667
Fruits & tree nuts	6,056	6,733	6,957	7,246	8,257	8,877	891	940	763	822	953	1,209
Other	7,365	8,065	8,381	9,041	10,020	10,476	615	912	1,145	868	580	617
Government payments	9,295	8,430	7,704	11,813	16,747	16,480	336	1,105	902	816	235	203
Total	145,862	150,869	151,839	147,352	156,215	165,911	12,207	12,959	12,265	12,563	12,501	12,269

<sup>a</sup>Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

**Table 36.—Farm Production Expenses**

	Calendar year									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ million									
Feed	20,971	20,855	18,592	21,725	19,852	18,015	16,179	16,898	20,962	20,000 to 24,000
Livestock	10,670	8,999	9,684	8,814	9,498	8,958	9,744	11,845	12,812	11,000 to 14,000
Seed	3,220	3,428	3,172	2,993	3,448	3,350	2,984	3,009	3,138	3,000 to 4,000
Farm-origin inputs	34,861	33,282	31,448	33,532	32,798	30,323	28,907	31,752	36,913	36,000 to 40,000
Fertilizer	9,491	9,409	8,018	7,067	7,429	7,258	5,787	5,610	6,400	6,000 to 8,000
Fuels & oils	7,879	8,570	7,888	7,503	7,143	6,584	4,790	4,442	4,544	4,000 to 6,000
Electricity	1,526	1,747	2,041	2,146	2,166	2,150	1,942	2,393	2,572	2,000 to 3,000
Pesticides	3,539	4,201	4,282	4,154	4,767	4,994	4,484	4,588	4,716	5,000 to 6,000
Manufactured inputs	22,435	23,927	22,229	20,870	21,505	20,986	17,003	17,033	18,233	18,000 to 22,000
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,821	7,795	7,305	7,287	7,000 to 9,000
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,187	7,885	7,000 to 9,000
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,699	16,926	15,492	15,172	15,000 to 17,000
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,416	6,370	6,426	6,546	6,858	7,000 to 8,000
Contract & hired labor	9,293	8,931	10,075	9,725	9,729	9,799	9,890	10,821	11,202	11,000 to 13,000
Machine hire & custom work	1,823	1,984	2,025	1,896	2,170	2,184	1,810	1,956	2,171	2,000 to 3,000
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,823	3,279	4,000 to 5,000
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,106	8,232	7,993	8,306	8,809	6,000 to 8,000
Other operating expenses	28,142	28,368	30,089	31,143	31,433	30,712	29,771	31,452	32,328	32,000 to 36,000
Capital consumption 1/	21,474	23,573	24,287	23,873	23,105	20,847	18,918	17,364	17,422	17,000 to 18,000
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,345	4,378	4,000 to 5,000
Net rent to nonoperator landlord	6,075	6,184	6,059	5,060	8,640	8,158	6,737	7,060	7,527	7,000 to 8,000
Other overhead expenses	31,440	34,003	34,381	33,402	35,804	33,236	29,780	28,769	29,326	28,000 to 31,000
Total production expenses	133,139	139,444	139,980	140,377	142,669	133,956	122,387	124,498	131,963	136,000 to 140,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases & dairy assessments. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 786-1804, Diane Bertelsen (202) 786-1808.

Table 37.—CCC Net Outlays by Commodity &amp; Function

COMMODITY/PROGRAM	Fiscal year									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 E
	\$ million									
Feed grains	1,286	-533	5,397	6,815	-758	5,211	12,211	13,967	9,053	4,169
Wheat	879	1,543	2,238	3,419	2,536	4,691	3,440	2,836	678	84
Rice	-76	24	164	664	333	990	947	906	128	692
Upland cotton	64	336	1,190	1,363	244	1,553	2,142	1,786	666	1,723
Tobacco	-88	-51	103	880	346	455	253	-346	-453	-481
Dairy	1,011	1,894	2,182	2,528	1,502	2,085	2,337	1,166	1,295	658
Soybeans	116	87	169	288	-585	711	1,597	-476	-1,676	-19
Peanuts	28	28	12	-6	1	12	32	8	7	6
Sugar	-405	-121	-5	49	10	184	214	-65	-246	0
Honey	9	8	27	48	90	81	89	73	100	66
Wool	35	42	54	94	132	109	123	152	1/ 5	95
Operating expense 2/	157	159	294	328	362	346	457	535	614	623
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	206
Export programs 3/	-669	-940	65	398	743	134	102	276	200	122
Other	-113	1,340	-225	-1,542	1,295	-314	486	371	1,695	5,540
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,484
FUNCTION										
Price-support loans (net)	-66	174	7,015	8,438	-27	6,272	13,628	12,199	4,579	-138
Direct payments										
Deficiency	79	0	1,185	2,780	612	6,302	6,166	4,833	3,971	5,559
Diversion	56	0	0	705	1,504	1,525	64	382	8	-1
Dairy termination	0	0	0	0	0	0	489	587	260	110
Other	25	0	0	0	0	0	27	60	0	45
Disaster	258	1,030	306	115	1	0	0	0	6	0
Total direct payments	418	1,030	1,491	3,600	2,117	7,827	6,746	5,862	4,245	5,713
1988 crop disaster	0	0	0	0	0	0	0	0	0	3,750
Emergency livestock/										
forage assistance	23	329	16	0	0	0	0	0	31	608
Purchases (net)	1,681	1,602	2,031	2,540	1,470	1,331	1,670	-479	-1,131	390
Producer storage										
payments	254	32	679	964	268	329	485	832	658	343
Processing, storage,										
& transportation	259	323	355	665	639	657	1,013	1,659	1,113	602
Operating expense 2/	157	159	294	328	362	346	457	535	614	623
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	206
Export programs 3/	-669	-940	65	398	743	134	102	276	200	122
Other	177	1,107	-281	-1,607	679	-648	329	305	1,757	1,265
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,484

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Does not include CCC transfers to general sales manager. 3/ Includes export guarantee program, direct export credit program, and CCC transfers to the general sales manager. E = Estimated in the fiscal 1990 mid-session review. Fiscal 1990 estimated outlays do not incorporate the impact of the Drought Assistance Act of 1989. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148.



## Food Expenditures

Table 38.—Food Expenditure Estimates

	Annual			1989			1989 year-to-date		
	1986	1987	1988	June	July P	Aug P	June	July P	Aug P
\$ billion									
Sales 1/									
Off-premise use 2/	237.1	244.9	255.7	23.4	23.8	23.6	132.4	156.2	179.8
Meals and snacks 3/	158.2	174.2	186.8	17.1	17.4	17.4	95.1	112.5	129.9
1988 \$ billion									
Sales 1/									
Off-premise use 2/	257.6	255.2	255.7	22.0	22.2	22.0	125.4	147.7	169.7
Meals and snacks 3/	171.3	181.3	186.8	16.4	16.6	16.6	91.9	108.5	125.1
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	3.3	3.3	4.4	8.8	6.5	7.5	7.4	7.3	7.3
Meals and snacks 3/	6.7	10.1	7.2	6.3	3.8	2.7	6.6	6.2	5.6
Percent change from year earlier (1988 \$ bil.)									
Sales 1/									
Off-premise use 2/	.3	-.8	-.2	1.3	-.1	1.6	-.2	-.1	.1
Meals and snacks 3/	2.7	5.8	3.0	1.6	-.8	-1.8	1.9	1.5	1.0

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations and home production. 3/ Excludes donations, child nutrition subsidies, and meals furnished to employees, patients, and inmates. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food, not alcoholic beverages and pet food, which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced and consumed on farms and food furnished to employees; (4) this series includes all sales of meals and snacks. PCE includes only purchases using personal funds, excluding business travel and entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575, Aug. 1987.

Information contact: Alden Manchester (202) 786-1880.

## Transportation

Table 39.—Rail Rates; Grain & Fruit/Vegetable Shipments

	Annual			1989						
	1986	1987	1988	Aug	Mar	Apr	May	June	July	Aug
Rail freight rate index 1/ (Dec. 1984=100)										
All products	100.7	100.1	104.8	105.4	105.9	106.0	106.1 P	106.4 P	106.6 P	107.1 P
Farm products	99.6	99.3	105.6	108.4	108.6	108.6	108.6 P	107.7 P	108.3 P	108.2 P
Grain	98.9	98.7	105.4	109.3	108.8	108.2	108.8 P	107.8 P	108.5 P	108.5 P
Food products	99.9	98.6	103.2	103.7	103.7	103.5	103.3 P	103.8 P	104.0 P	104.3 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	24.4	29.0	30.7	27.0	31.8 P	30.1 P	25.9 P	27.3 P	25.0 P	25.9 P
Fresh fruit & vegetable shipments										
Piggy back (1,000 cwt) 3/ 4/	629	588	532	501	455	502	763	709	603	454
Rail (1,000 cwt) 3/ 4/	563	630	609	168	686	571	683	900	521	215
Truck (1,000 cwt) 3/ 4/	9,031	9,137	9,656	9,296	9,391	10,293	11,301	12,277	9,762	8,863
Cost of operating trucks										
hauling produce 5/										
Owner operator (cts./mile)	113.1	116.3	118.7	118.6	122.9	124.1	123.5	123.4	123.4	123.4
Fleet operation (cts./mile)	113.6	116.5	118.4	118.2	121.9	123.1	122.6	122.7	122.9	122.6

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1988 & 1989. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

## Indicators of Farm Productivity

Table 40.—Indexes of Farm Production, Input Use, & Productivity<sup>1</sup>

	1980	1981	1982	1983	1984	1985	1986	1987	1988 2/	1989 2/
1977=100										
Farm output	104	118	116	96	112	118	111	110	99	109
All livestock products 3/	108	109	107	109	107	110	110	113	116	116
Meat animals	107	106	101	104	101	102	100	102	105	104
Dairy products	105	108	110	114	110	117	116	116	118	118
Poultry & eggs	115	119	119	120	123	128	133	144	149	153
All crops 4/	101	117	117	88	111	118	109	106	92	103
Feed grains	97	121	122	67	116	134	123	105	73	106
Hay & forage	98	106	109	100	107	106	106	103	90	99
Food grains	121	144	138	117	129	121	106	106	98	108
Sugar crops	97	107	96	93	95	97	106	112	107	110
Cotton	79	109	85	55	91	94	69	104	108	85
Tobacco	93	108	104	75	90	81	63	64	71	78
Oil crops	99	114	121	91	106	117	110	106	88	105
Cropland used for crops	101	102	101	88	99	98	94	88	87	--
Crop production per acre	100	115	116	100	112	120	116	122	106	--
Farm input 5/	103	102	99	97	95	92	87	86	--	--
Farm real estate	103	104	102	101	97	95	93	92	--	--
Mechanical power & machinery	101	98	92	88	84	80	75	72	--	--
Agricultural chemicals	123	129	118	105	121	123	110	111	--	--
Feed, seed, & livestock purchases	114	108	108	110	106	106	103	108	--	--
Farm output per unit of input	101	116	117	99	119	128	127	127	--	--
Output per hour of labor										
Farm 6/	109	123	125	99	121	139	139	142	131	--
Nonfarm 7/	99	100	99	102	105	106	108	109	111	--

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1986, ECIFS 5-6. 2/ Preliminary indexes for 1988 based on Crop Production: 1988 Summary, released in January 1989, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. -- = not available.

Information contact: Jim Hauver (202) 786-1459.



# Food Supply and Use

Table 41.—Per Capita Consumption of Major Food Commodities<sup>1</sup>

	1980	1981	1982	1983	1984	1985	1986	1987	1988 2/
	Pounds								
Meats (boneless, trimmed weight) 3/	123.4	121.9	116.7	120.3	119.9	120.9	118.3	113.3	115.1
Beef	72.1	72.7	72.4	73.8	73.6	74.3	74.1	69.2	68.2
Veal	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.3	1.1
Lamb & mutton	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0	1.0
Pork	49.1	46.8	41.9	44.0	43.7	44.1	41.6	41.8	44.7
Fish (edible weight)	12.8	12.9	12.3	13.1	13.7	14.4	14.7	15.4	15.0
Canned	4.5	4.8	4.3	4.8	4.9	5.1	5.4	5.1	5.1
Fresh & frozen	8.0	7.8	7.7	8.0	8.3	9.0	9.0	10.0	9.6
Cured	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Poultry (boneless weight)	42.8	44.0	45.0	45.9	47.2	49.4	51.1	55.3	57.2
Chicken	34.5	35.5	36.5	37.0	38.2	39.8	40.6	43.4	44.6
Turkey	8.3	8.5	8.5	8.9	9.0	9.5	10.5	11.9	12.6
Eggs	34.4	33.5	33.5	33.0	32.9	32.2	31.7	31.6	30.9
Dairy products									
Cheese (excluding cottage)	17.5	18.2	19.9	20.5	21.4	22.5	23.0	24.0	23.6
Cottage cheese	4.5	4.3	4.2	4.1	4.1	4.1	4.1	3.9	3.9
Fluid whole milk 4/	146.4	139.6	133.2	130.0	126.5	122.9	116.0	111.4	106.1
Fluid lowfat milk 5/	79.4	82.2	83.0	85.4	88.6	93.4	98.2	100.1	101.6
Fluid skim milk	11.6	11.3	10.6	10.6	11.5	12.6	13.4	14.0	16.2
Fluid cream 6/	3.4	3.4	3.4	3.7	4.0	4.4	4.7	4.6	4.7
Yogurt	2.6	2.5	2.6	3.2	3.7	4.1	4.4	4.5	4.6
Ice cream (product weight)	17.5	17.4	17.6	18.0	18.1	18.1	18.4	18.3	17.2
Ice milk	7.1	7.0	6.6	6.9	7.0	6.9	7.2	7.4	7.9
Fats & oils									
Butter	4.5	4.2	4.3	4.9	4.9	4.9	4.6	4.6	4.5
Margarine	11.3	11.1	11.0	10.4	10.4	10.8	11.4	10.5	10.3
Shortening	18.2	18.5	18.6	18.5	21.2	22.8	22.0	21.3	21.4
Lard (direct use)	2.6	2.5	2.5	2.1	2.1	1.8	1.7	1.8	1.7
Edible tallow (direct use)	1.1	1.0	1.3	2.1	1.7	1.9	1.8	1.0	0.8
Salad & cooking oils	21.2	21.8	21.8	23.5	19.8	23.5	24.1	25.2	25.7
Selected fresh fruits 3/	86.8	83.8	83.9	88.8	88.2	86.7	92.5	97.8	93.4
Citrus	27.9	24.1	23.9	28.3	23.2	22.6	25.8	25.5	25.6
Apples	18.5	16.5	17.0	17.7	17.9	16.8	17.5	20.4	18.1
Other noncitrus	40.5	43.1	43.0	42.7	47.1	47.3	49.2	51.8	49.7
Canned fruit 7/	10.2	9.1	9.4	8.2	8.3	8.4	8.7	8.8	8.8
Frozen fruit	3.1	2.9	2.9	2.9	3.0	3.3	3.6	3.9	3.8
Dried fruit	2.3	2.5	2.8	2.9	3.0	2.7	3.0	2.7	2.9
Selected fresh vegetables 8/	72.6	71.2	75.0	74.6	79.1	79.2	84.6	89.0	89.8
Selected vegetables for processing 3/ 9/	105.0	100.3	98.5	100.2	108.7	104.7	103.4	103.7	100.7
Tomatoes for processing 9/ 10/	63.6	59.3	60.1	60.8	68.4	63.1	63.4	64.6	61.0
Cucumbers for pickling 9/	5.6	5.7	5.7	5.8	5.8	5.8	5.3	5.1	5.2
Other vegetables for canning 9/ 11	21.4	20.7	19.2	19.0	17.0	18.7	19.0	17.3	16.6
Vegetables for freezing 9/ 12/	14.4	14.7	13.6	14.6	17.5	17.1	15.8	16.7	17.9
White potatoes									
Fresh	49.0	43.8	44.8	47.9	46.8	44.7	47.6	46.5	52.4
Frozen	18.5	18.9	19.5	19.4	20.2	22.0	23.0	22.8	21.9
Canned	1.2	1.1	1.2	1.2	1.1	1.2	1.1	1.1	1.1
Dehydrated	1.3	1.5	1.4	1.4	1.4	1.6	1.5	1.5	1.4
Chips & shoestrings	4.1	4.1	4.2	4.4	4.4	4.3	4.5	4.3	4.2
Sweetpotatoes 9/	4.5	4.8	5.5	4.6	5.0	5.4	4.5	4.5	4.4
Grains									
Wheat flour 13/	116.8	115.8	116.7	117.4	118.1	123.3	123.5	127.1	127.5
Rice	9.4	11.0	11.8	9.7	8.6	9.1	11.6	13.4	14.3
Pasta	10.0	10.0	9.9	10.5	11.3	12.9	14.4	17.1	--
Breakfast cereals	12.9	13.0	13.1	13.4	14.0	14.4	14.8	15.2	--
Caloric sweeteners 14/ 15/	123.9	124.9	127.8	130.4	129.7	132.8	133.5	132.8	133.9
Sugar (refined) 16/	83.6	79.4	73.6	71.0	67.6	63.4	60.8	62.4	62.4
Corn sweeteners (dry weight) 14/ 17/	39.1	43.5	48.2	52.6	58.8	65.6	67.5	69.0	70.1
Low-calorie sweeteners 18/	7.7	8.2	9.5	12.9	15.8	18.1	18.5	19.0	--
Other									
Coffee	7.7	7.7	7.6	7.6	7.5	7.6	7.6	7.6	7.6
Cocoa (chocolate liquor equiv.)	2.7	2.9	3.0	3.2	3.4	3.7	3.8	3.9	4.0
Peanuts (shelled)	4.8	5.5	5.9	5.9	6.0	6.3	6.4	6.3	6.8
Dry edible beans, peas, & lentils 9/	5.8	5.8	6.9	7.2	5.5	7.4	7.1	8.3	--
Soft drinks (gal.)	27.1	27.1	26.9	26.9	27.2	30.4	31.9	31.6	31.3
Citrus juice (gal.)	5.1	4.8	5.1	5.6	4.8	5.2	5.6	5.3	5.3

1/ Quantity in pounds, retail weight unless otherwise stated. Data on calendar year basis except fresh citrus fruits, apples, peanuts, potatoes, sweetpotatoes, & rice, which are on a crop-year basis. 2/ Preliminary. 3/ Total may not add because of rounding. 4/ Plain & flavored. 5/ 1% and 2% buttermilk, and flavored drinks. 6/ Heavy cream, light cream, & half & half. 7/ Excludes apples, applesauce, cranberries, pineapple, & citrus sections. 8/ Includes asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, onions, and tomatoes. 9/ Farm weight. 10/ Used in such processed products as ketchup, canned tomatoes, tomato paste, & tomato puree. 11/ Includes asparagus, carrots, green peas, snap beans, & sweet corn. 12/ Includes asparagus, broccoli, carrots, cauliflower, green peas, snap beans, and sweet corn. 13/ White, whole wheat, semolina, & durum flour. 14/ Dry weight equivalent. 15/ Includes edible syrups & honey. 16/ Beginning 1982, includes small amount of refined sugar contained in imported blends & mixtures, including sucrose-dextrose blends, sugar-sweetened tea mixes, & flavored syrups in consumer size containers. 17/ High fructose, glucose, & dextrose. 18/ Sugar sweetness equivalent. Assumes saccharin is 300 times as sweet as sugar; & aspartame, 200 times as sweet as sugar. -- = not available.

Information contact: Judith Jones Putnam (202) 786-1870.

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